C677
T35b

VOL. 86 NO. 6

textile bulletin

JUNE • 1960

Formalized Value Analysis
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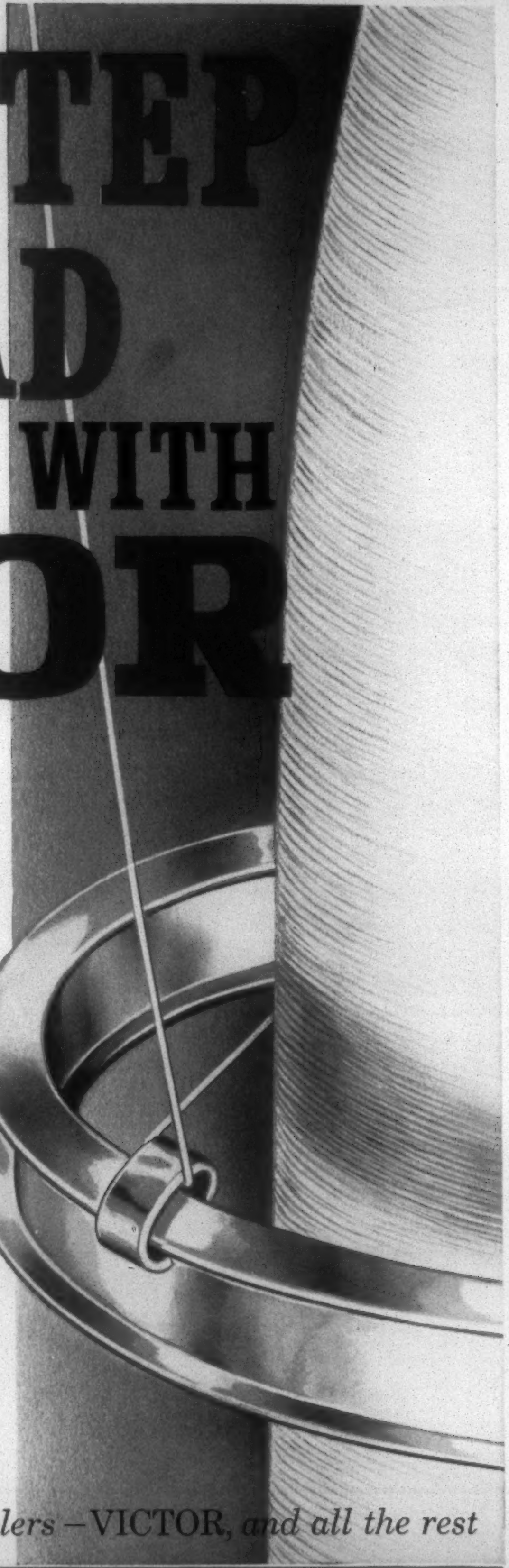

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The dependability and economy of Sonoco cones, tubes, cores and spools begin with the paper from which they are made. To meet customer specifications, Sonoco operates ten modern paper machines to produce over 250 different weights, grades, surfaces and colors. Sonoco, therefore, is able to exert close quality control from raw material to finished product. That's why you can depend on a Sonoco product to perform the function for which it was designed—*no more, no less.* This saves you money, improves the quality of your production and helps reduce downtime.

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1021

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MICRO - ELECTRIC
PRECISION ALIGNING KIT

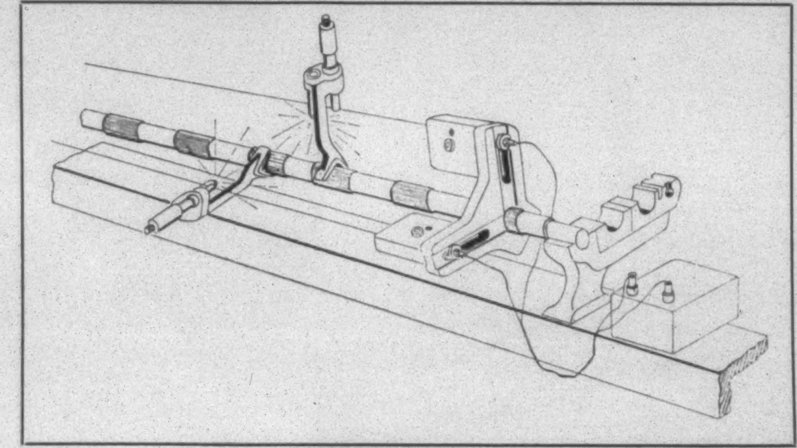
NEW • PRECISE
EASY • FAST

NO DISMANTLING • NO UNGEARING

WILL LINE AND LEVEL ROLL-BEAM STANDS AND ROLLS TO A TOLERANCE OF .005"

Use on any type Drafting.

Simply raise one saddle on each stand.



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Two Brackets.

Two aligning wires.

Electric Micrometer.

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ACCURATE

No experience necessary to operate.

About one hour to align one spinning frame.

Have smoother turning rolls.

Cut down chatter—vibration.

Make all bearings carry their share of the load.

IT'S RUGGED IN DESIGN
SIMPLE TO OPERATE

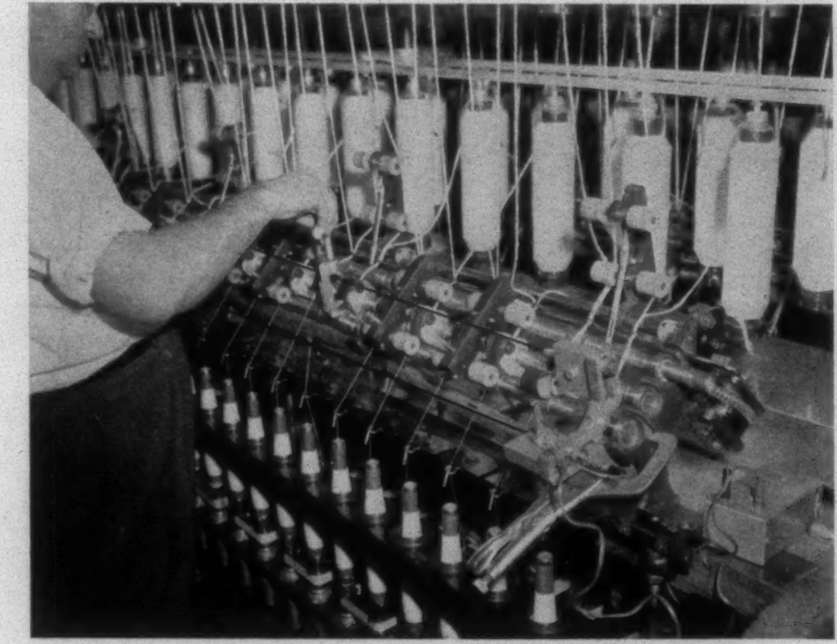

Photo shows Micro-Electric Aligning system in place with operator making a "Level Check." The line drawing above shows the Kit parts positions.

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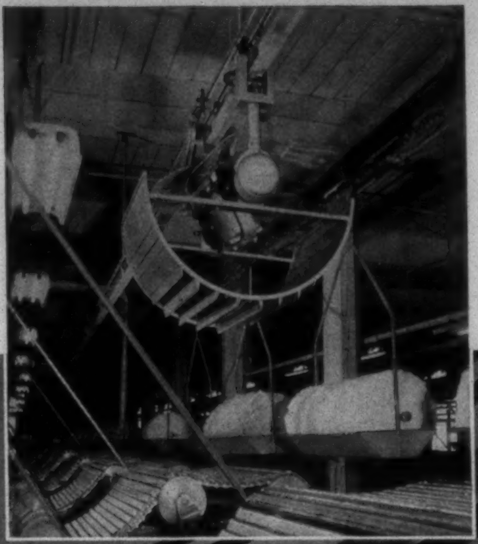
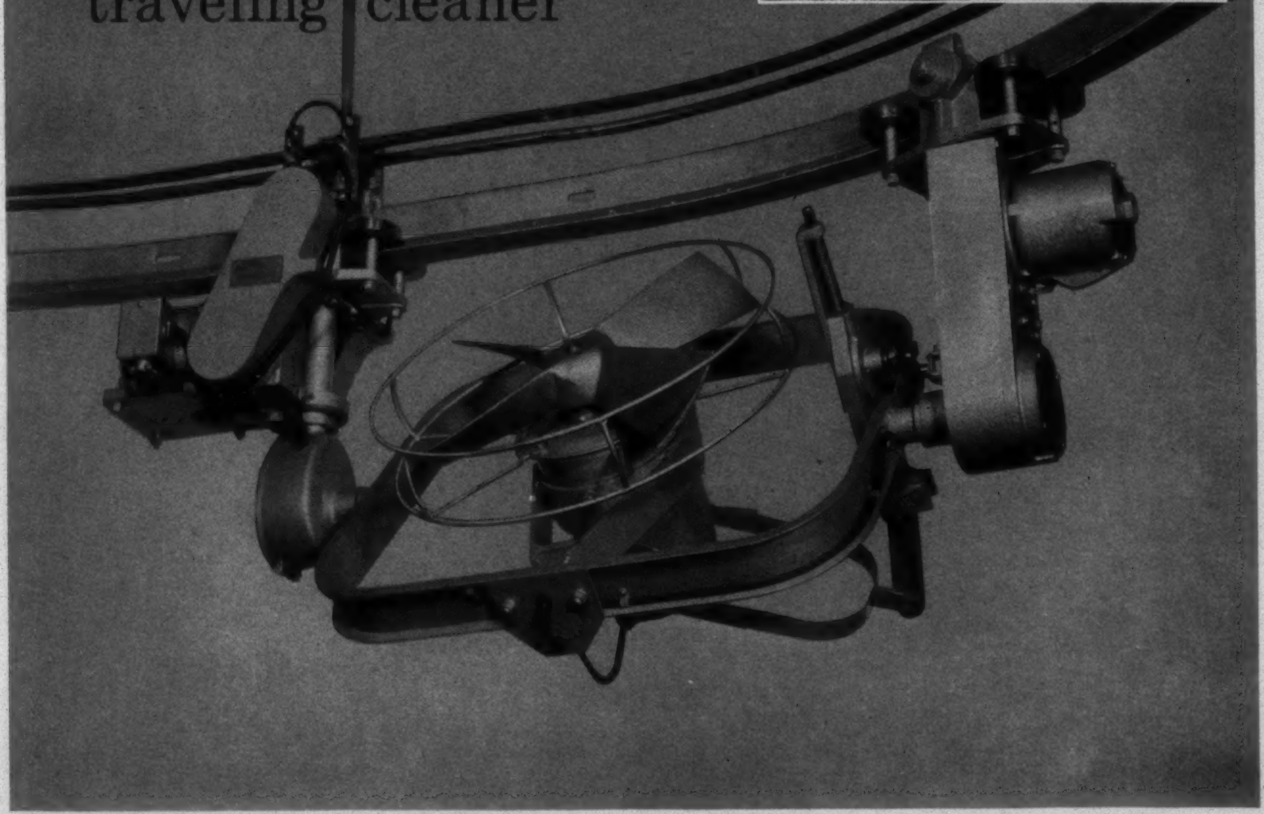
To the mill man who wants maximum overhead cleaning



Bahnson Aero-Sweep traveling cleaner



You get maximum overhead cleaning with the Aero-Sweep Cleaner because:

- it cleans the objective more thoroughly with head-on air blasts at ½ the distance of other cleaners.
- it cleans all objects throughout cleaning cycle at predetermined frequency.
- only Aero-Sweep has an exclusive patented indexing feature which sets the cleaning pattern for any area, prevents lint accumulation on all surfaces.

You clean your mill at less cost with Aero-Sweep because:

- one Aero-Sweep Cleaner cleans up to three times the area covered by other cleaners.
- it ends manual blow-down by removing lint from ceilings, walls, overhead equipment.
- it minimizes slubs and gouts, improves quality of product.

For details, see **free illustrated** Bulletin 21A. Clip coupon to letterhead and mail today.

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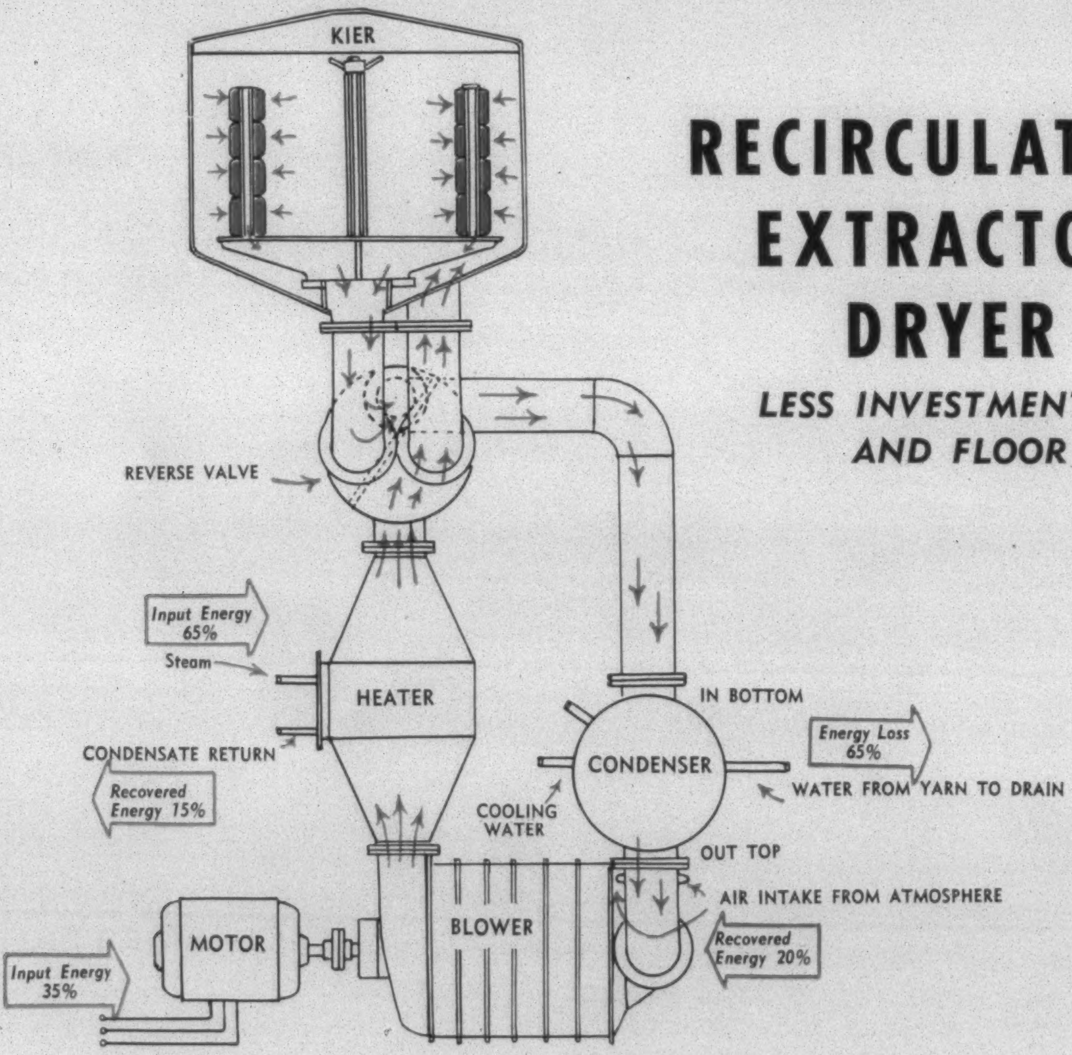

RECIRCULATING EXTRACTOR DRYER

LESS INVESTMENT AND FLOOR SPACE

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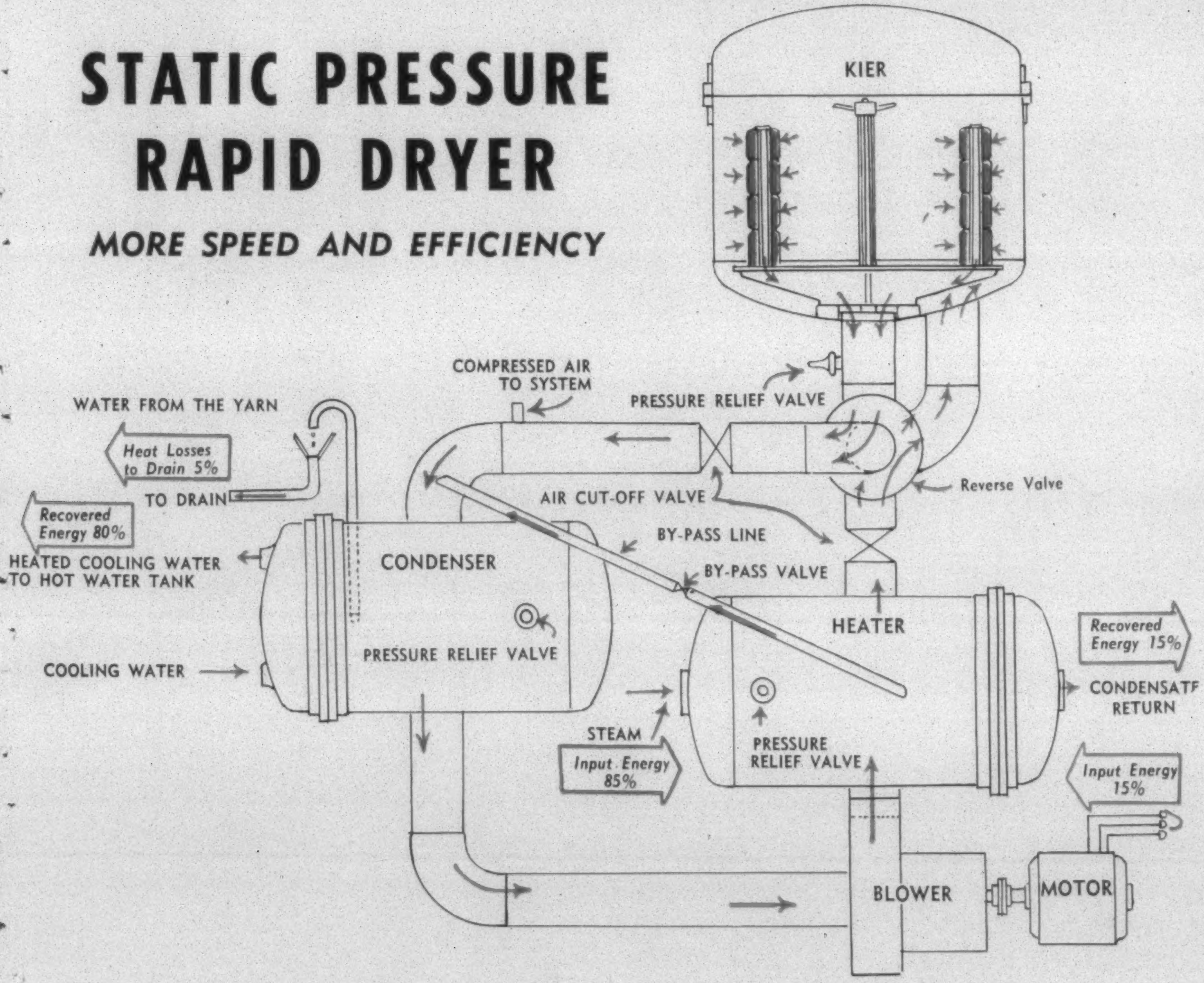
–We build it

STATIC PRESSURE RAPID DRYER

MORE SPEED AND EFFICIENCY



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a revolutionary break with convention
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X-3
high speed versatility
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rugged stability
mechanical excellence
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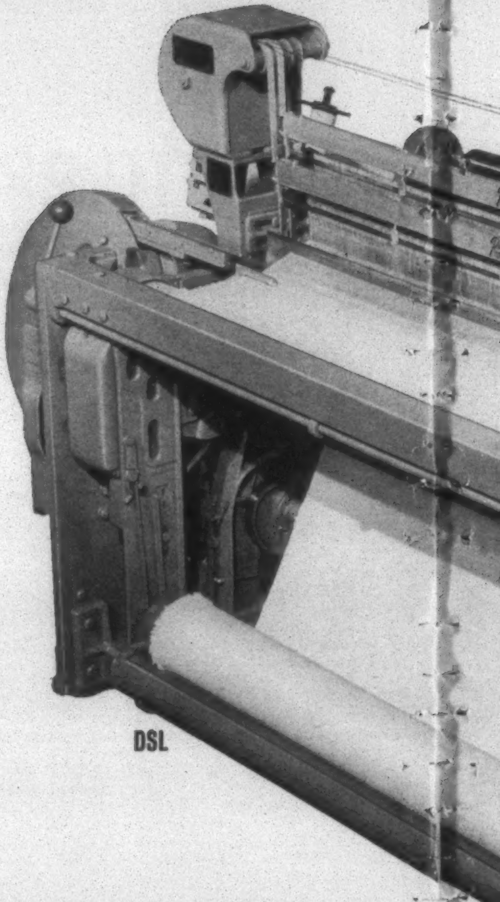
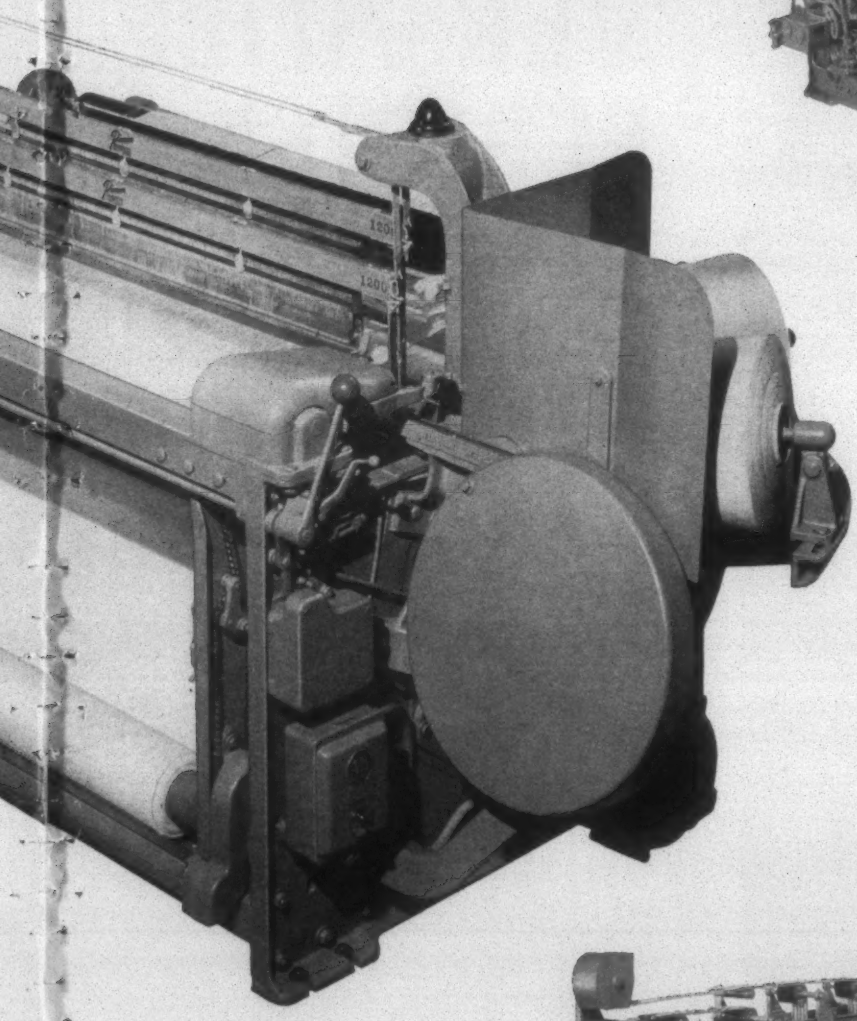
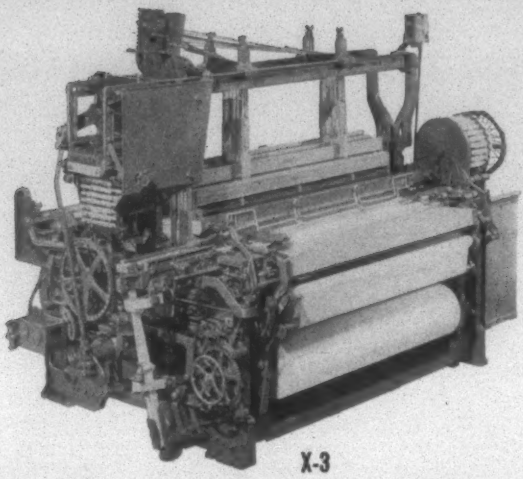

DSL





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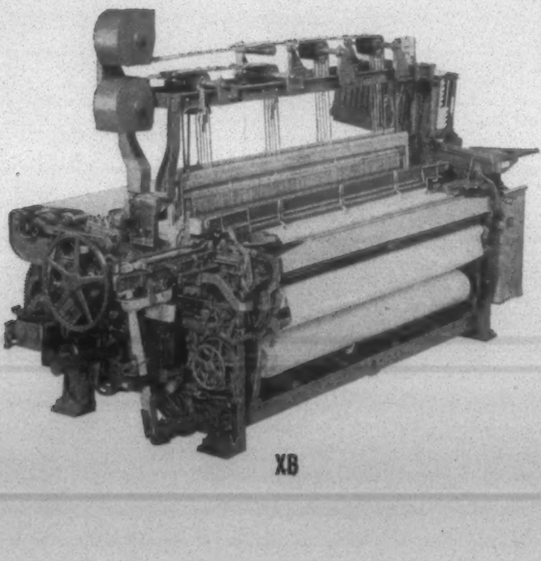

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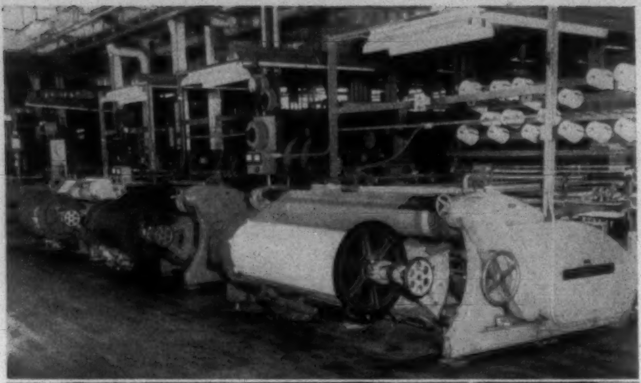

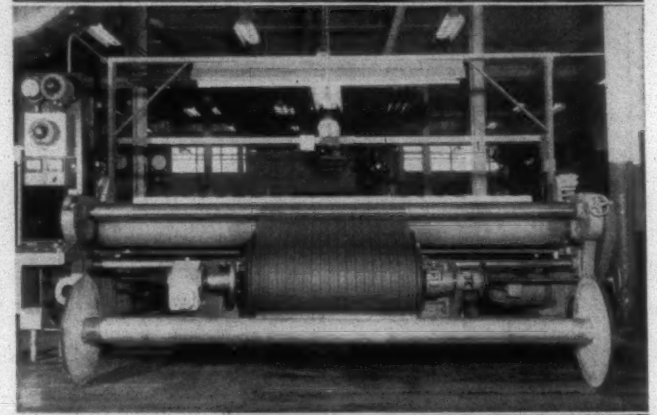

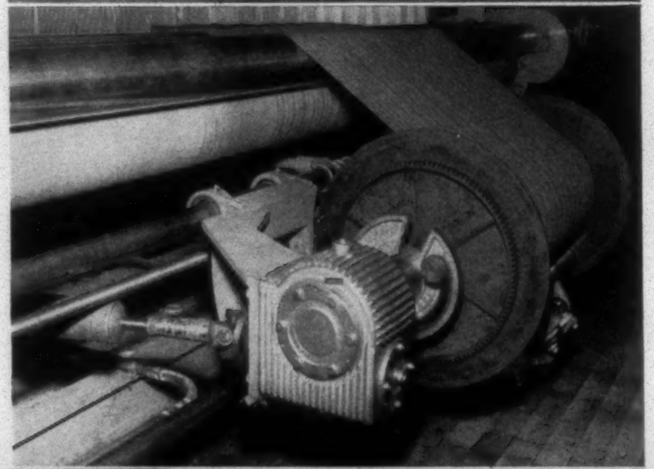

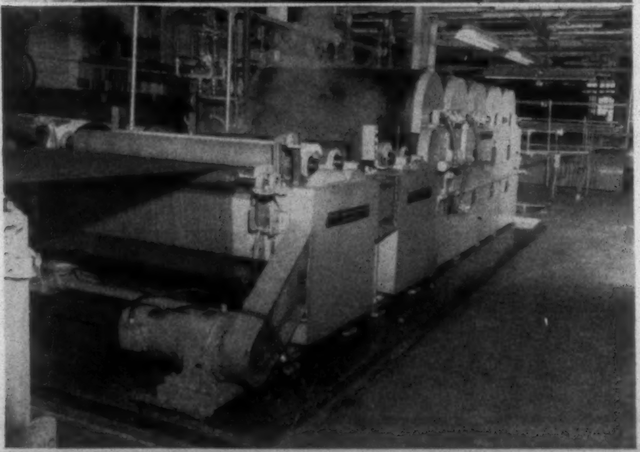

THE COCKER GH SLASHER VERSATILE EFFICIENT

Shown here are several views of part of a Cocker 9 cylinder GH Slasher installation at Swift Manufacturing Company, Columbus, Ga.—one of America's most versatile mills. These slashers operate on Acetate, Rayon, Nylon, Cotton and blends—stripes, solid colors, as well as greige goods.

The second picture demonstrates the extreme flexibility of the Cocker GH Slasher—accommodating beams from 36 inches to the 128 inch beam shown in front of the machine—with no projecting spindles. Note also, the convenient control panel.

Shown clearly in the third picture is the revolutionary Cocker Torque Tube Drive* which eliminates troublesome belts, chains, sprockets, etc. This greatly reduces maintenance and simplifies changing beam widths.

The lower picture shows the cylinder section and two Model DA Size Boxes.

Due to especially heavy warp construction, maximum speeds on this particular installation are approximately 100 yards per minute. In other mills, Cocker GH Slashers are operating at speeds up to 184 yards per minute on lighter constructions.

We believe that the new Cocker Model GH Slasher is the most efficient and versatile slasher in the World. Let us give you full information.

*Pat. Pending

COCKER MACHINE & FOUNDRY CO.

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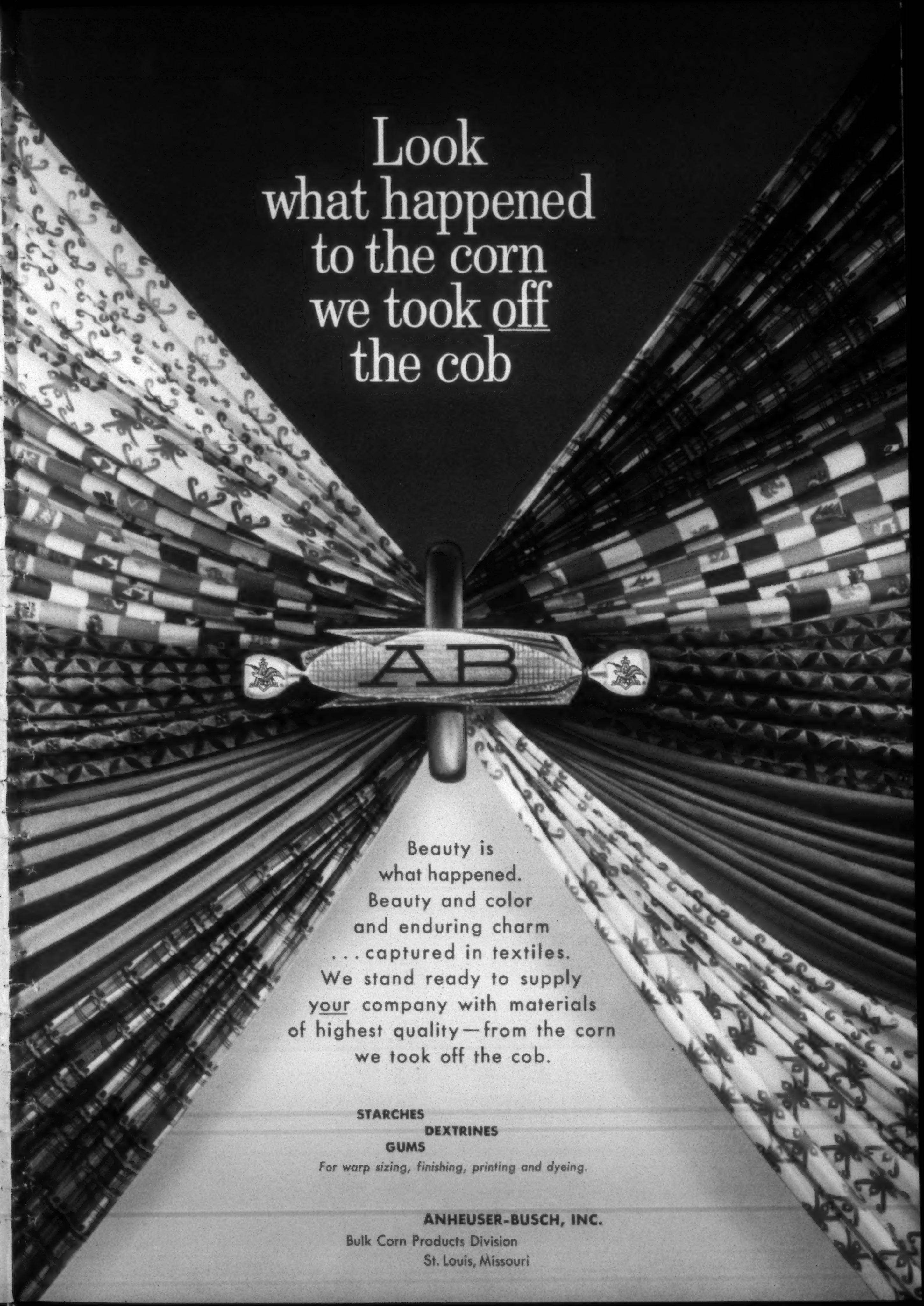

Look what happened to the corn we took off the cob

Beauty is
what happened.
Beauty and color
and enduring charm
. . . captured in textiles.
We stand ready to supply
your company with materials
of highest quality—from the corn
we took off the cob.

STARCHES
DEXTRINES
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For warp sizing, finishing, printing and dyeing.

ANHEUSER-BUSCH, INC.
Bulk Corn Products Division
St. Louis, Missouri

get to know the facts about

Creslan®

ACRYLIC FIBER

The Most Modern of the Acrylic Fibers

Creslan acrylic fiber has already made an auspicious entry into spinning mills and weaving plants. You will be interested in knowing more about this versatile fiber. Its qualifications are specific—and numerous. For a full description of these qualities and properties, write for your copy of our TECHNICAL DATA BULLETIN.

Creslan acrylic fiber is a product of American Cyanamid Company,
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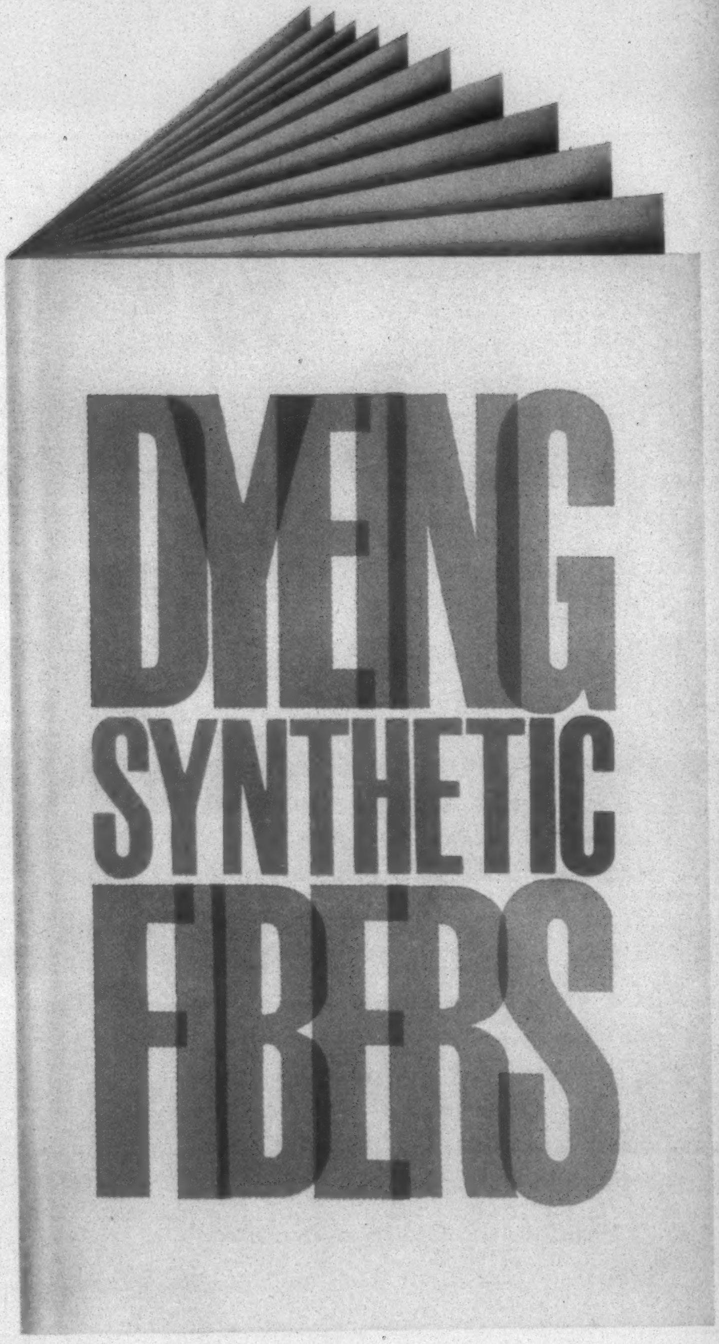

to help solve current problems

NEW SIXTH EDITION

Keeping pace with the advances in man-made fibers, GDC has revised and expanded this booklet to include new developments, as well as methods and suggestions for dyeing synthetic fibers.

Send in the coupon and receive your free copy of this valuable booklet without obligation.

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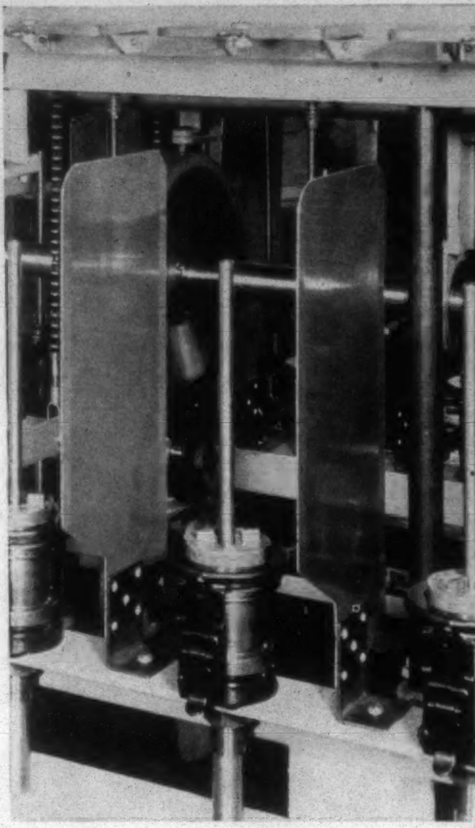
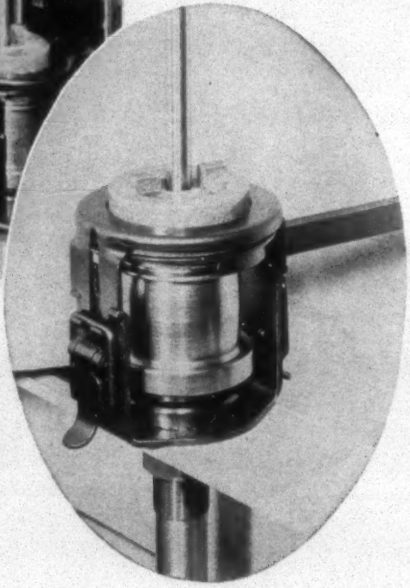


Again demonstrating

MEADOWS-
YEARS-AHEAD
ENGINEERING

WE HAVE LICKED ANOTHER MAJOR TWISTER PROBLEM

WE ANNOUNCE: A new, completely automatic stop motion . . . . not electric, not pneumatic —no valves, no switches.



This single end, single spindle, completely automatic stop motion stops bobbin, spindle blade and yarn feed instantly, when single yarn in the creel breaks or runs out.

It leaves the whorl on the stopped spindle operating freely on ball bearings, which means there is no wear on the tape from slippage, and no slow-down on the other spindles driven with the same tape.

Eliminates waste from dropped ply.

ONE DROP
ONE STOP
ONE SPINDLE

One single end down from the creel stops only its own spindle.

Available on

MEADOWS

anti-friction

TWISTERS

with rings up to 9″ in diameter and bobbin build up to 12″. Meadows Twisters will handle any fibers or filaments that can be twisted on ring frames.

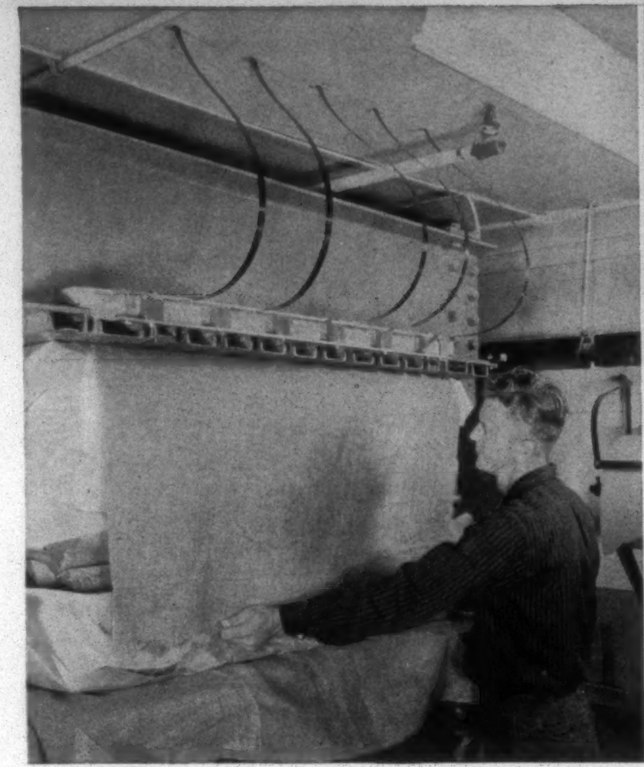
Watch for more Meadows developments at the Greenville show.

Further information or detailed folder on request.

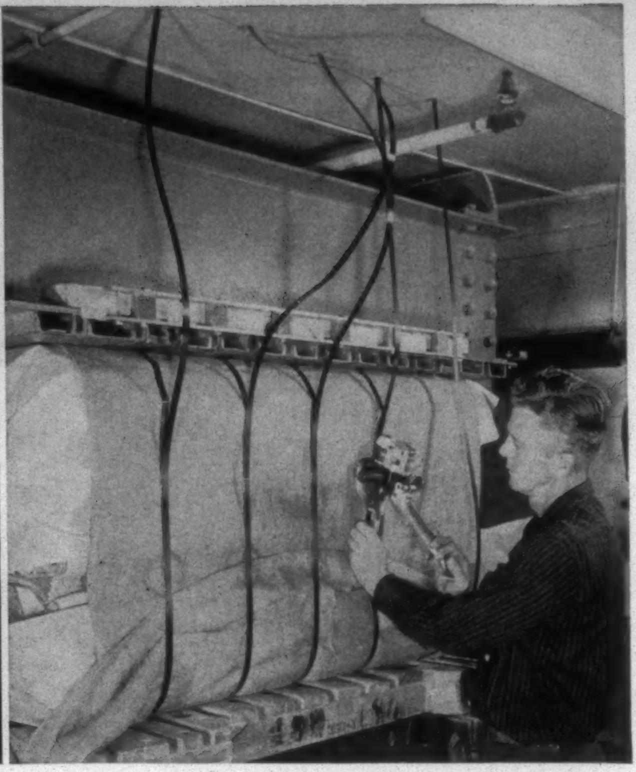
MEADOWS MANUFACTURING CO.

Established 1931 **ATLANTA 10, GEORGIA**

Visit us at 1190 Astor Ave., S.W. • **Phone us** at Plaza 5-1663 • **Write us** at P. O. Box 10876

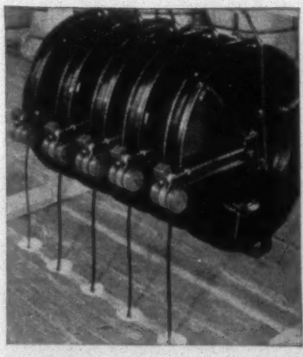


Strapping is fed from dispensers in room above press. A magnetized bar holds the straps in position while bale is readied.

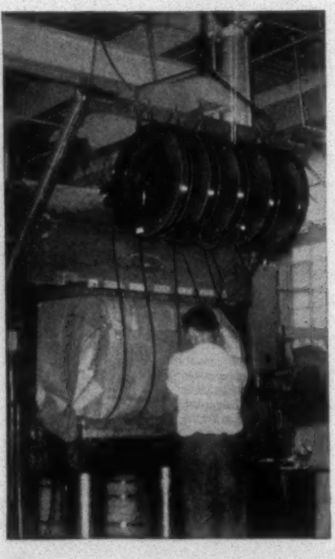


Signode's exclusive Model SFC tool tensions the strapping, feeds seals from magazine, and crimps them. Straps are severed at the seal. No waste strap.

Signode way produces denser bales and reduces strap use by 17%



Strapping dispensers can be in a variety of locations. Above, they are shown set up in an overhead storage area; at right they are shown installed on a framework over the press. They may also be installed on the floor beneath the press or behind the operator.



Exclusive Straptrollers prevent overrun of strapping from dispensers.

Here's an example of a simple and inexpensive answer to a packaging problem. Waste—which was part of the former cut-to-length strapping method—was eliminated, with a 17% saving in the amount of strapping used. Bales are better looking. Their increased density saves about 7% of valuable space in storage and shipment. The entire strapping operation is simplified, goes easier and faster.

Why not let a Signode man take a new look at your packaging and shipping operation. He has an eye for savings, specialized knowledge of textile applications, and a complete line of strapping tools and machines at his disposal. Call him today, or write:

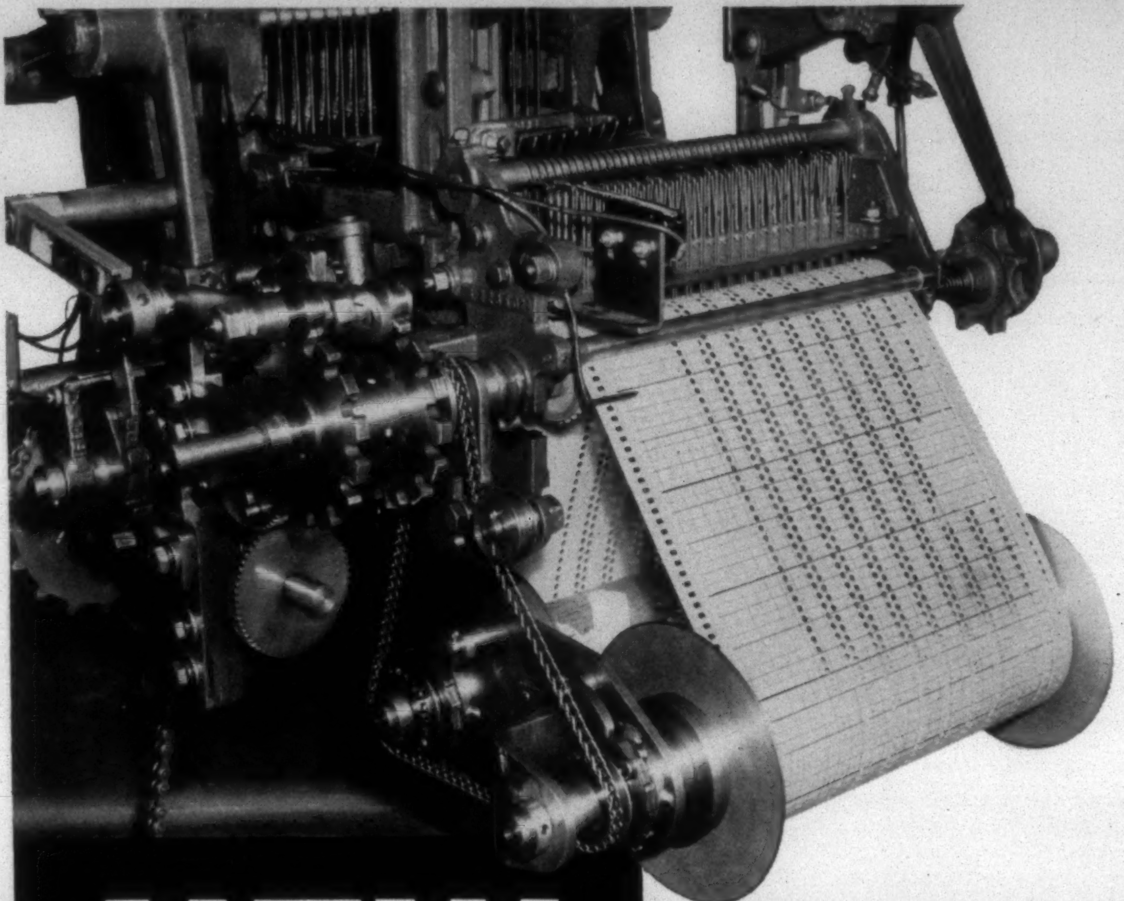
SIGNODE

First in steel strapping

SIGNODE STEEL STRAPPING CO.

2665 N. Western Avenue, Chicago 47, Illinois

Offices Coast to Coast. Foreign Subsidiaries and Distributors World-Wide
In Canada: Canadian Steel Strapping Co., Ltd., Montreal • Toronto



NEW

Reversing Roll Dobby
Pattern Indication
For Long Patterns

- ***Utilizes pattern on strip instead of continuous belt.***
- ***Eliminates bulky storage problems.***
- ***Eliminates damage in handling and storage.***
- ***Saves valuable floor space at loom.***
- ***Available for present C & K Dobby Looms.***

The new type of Dobby pattern indication puts both the harness and box pattern on one continuous reversing strip. It is available on new C & K Dobby Looms as well as for existing Dobby Looms.

Harness and box patterns are punched so that a complete weaving cycle is achieved after the pattern has run forward the entire length and then back to the starting point. Operation is completely automatic and can be repeated indefinitely.

The new Reversing Roll Dobby Indicator reduces the problems of damage to patterns in handling and storage due to bulk. Pattern length compared with chain is cut 76%. 100 picks are contained in 1 foot of pattern length. Both paper or Mylar plastic pattern materials are available.

Call or write us for more information.

MANUFACTURERS OF
THE WORLD'S LONGEST LINE
OF AUTOMATIC BOX LOOMS

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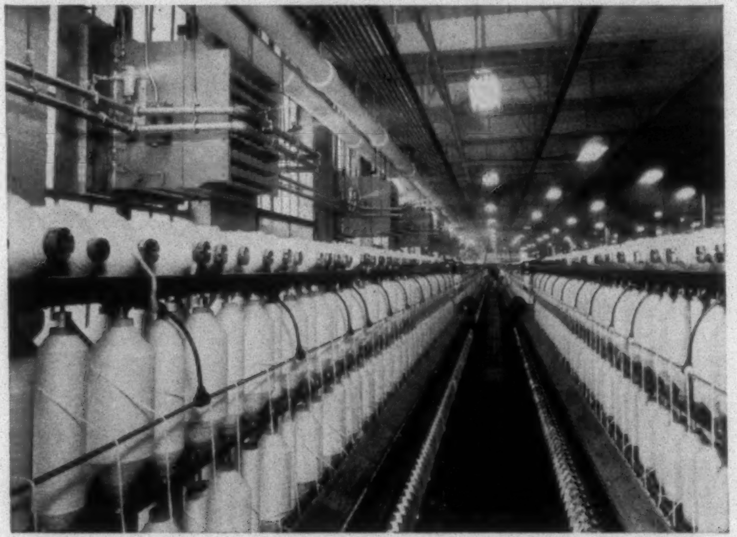
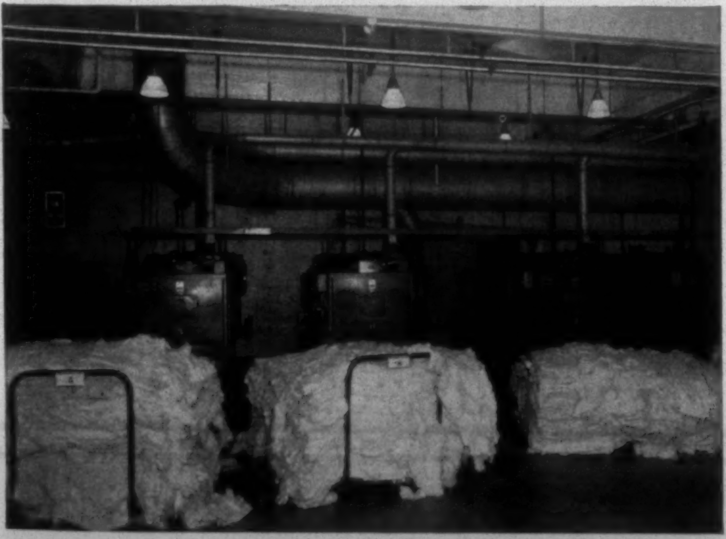
Amco Central Station Air Conditioning, using cold water for cooling in warm weather, maintains the proper humidity and temperature conditions year 'round in the above spinning room.



Amco ductless system of humidification, cooling and ventilating installed in a spinning room. Window units and Amco #6 atomizers visible at left, supply properly conditioned air.



Where straight humidification is desired. Amco #6 atomizers — operated with sensitive Amco humidity controls — provide just the right degree of relative humidity for blending, opening and picking operations.

Look to Amco for help in solving any air conditioning problem you may have

Most mill owners face a variety of air conditioning problems. All areas of the three mills illustrated here, for example, required different and distinct types of air conditioning. Amco helped solve these needs by the installation of the proper Amco system, suited to the individual requirements. The results have been better quality, greater worker comfort, and improved efficiency.

Do you have an air treatment problem in your mill? Choose from these systems, used by leading mills, to provide central station air conditioning in one area, humidification alone in another, or a unit ductless evaporative cooling system in still another. Amco, of course, also installs unit dry duct systems.

Whatever your needs, remember . . . you can depend on Amco to give you reliable advice and an expert installation of the system best suited to your particular case.

AMCO

SINCE 1888

AIR CONDITIONING EQUIPMENT

American Moistening Company • Cleveland, North Carolina
Branches: Atlanta, Ga. • Providence, R. I.
Toronto, Canada

Stop Migration of Pigment Colors with

Superclear

Well-known Printing Gum
Now Enters The Dyeing Process

Are you pad dyeing synthetics with dispersed pigment colors? Use Superclear in the pad liquor. It eliminates shading from selvedge to selvedge. And there's no tailing off of shades when Superclear is present in the pad liquor. In vat-acid continuous dyeing, use Superclear with the pad liquor for level shades with any mixture of vat dyes. Superclear prevents migration of the pigment; assures uniform shades from end to end. For pad-steam continuous vat dyeing, absolutely uniform pigmentation is obtained by adding Superclear to the pad liquor. A full range of level shades is obtained, from pastels to deep tones, plus excellent fixation without migration of pigment.

LOMAR PW is recommended as a successful suspending agent. For those who add wetting agents in these operations, we have a full line to offer. Contact Jacques Wolf today for your sample and complete information.

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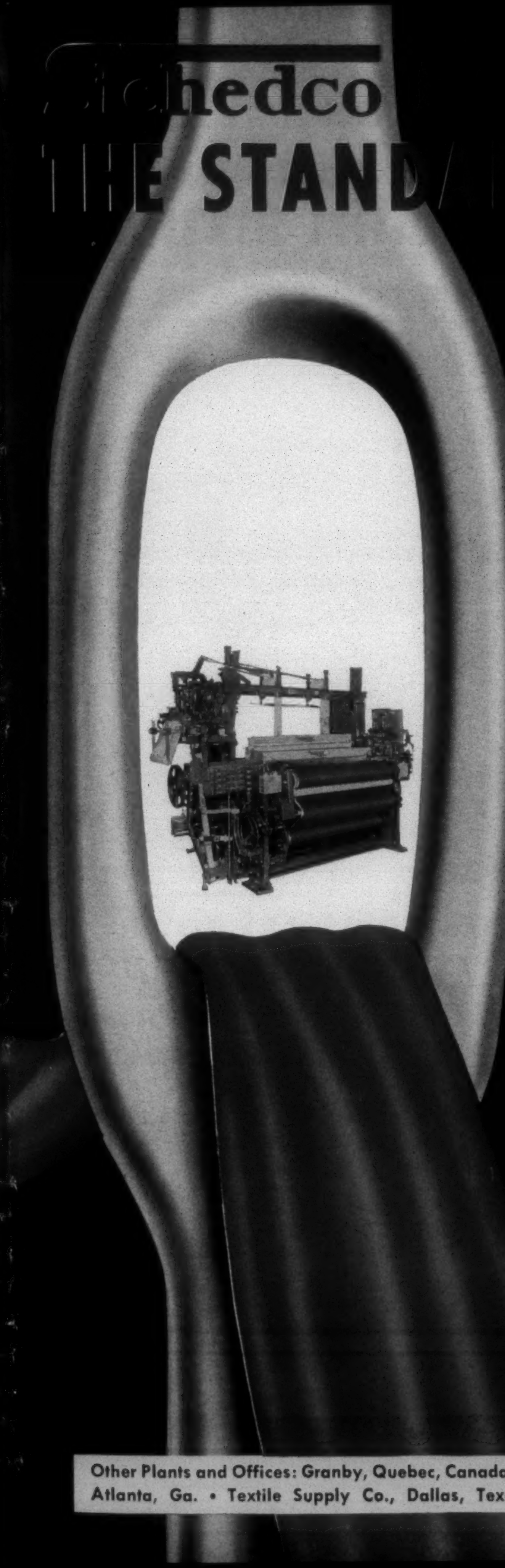
THE STANDARD OF QUALITY



Ever since flat steel heddles were first introduced to American Textile Mills by Steel Heddle Manufacturing Company, the highest standards of Quality Control have been maintained, and the latest developments and improvements have been introduced first by Stehedco.

Stehedco Engineers are constantly working on improvements in design and construction so that you, the producers of fine fabrics, can have more efficient and better quality production, and greater profits.

Made from the finest quality material, by experienced craftsmen who take justifiable pride in their work, Stehedco flat steel heddles are finished to perfection for smooth performance.

The fact that most mills are equipped with Stehedco heddles proves their well earned popularity. Their reputation for giving longer, trouble-free service, and producing better quality fabrics, is the reason for their great popularity. It is a well known fact that Stehedco heddles are really less expensive in the long run.

Every popular type heddle is available to suit any application, to handle the most delicate yarns, or the heaviest. Ask to have one of our qualified Sales Engineers show how YOU can benefit by equipping your looms with Stehedco heddles.

Be sure you have the best heddles for your particular application; be sure you have STEHEDCO heddles.

(Illustration of C-7 Loom courtesy of Crompton & Knowles Corporation.)

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STEEL HEDDLE MFG. CO.
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H-6002

NOW...FASTER,
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MORE UNIFORM YARN SIZING

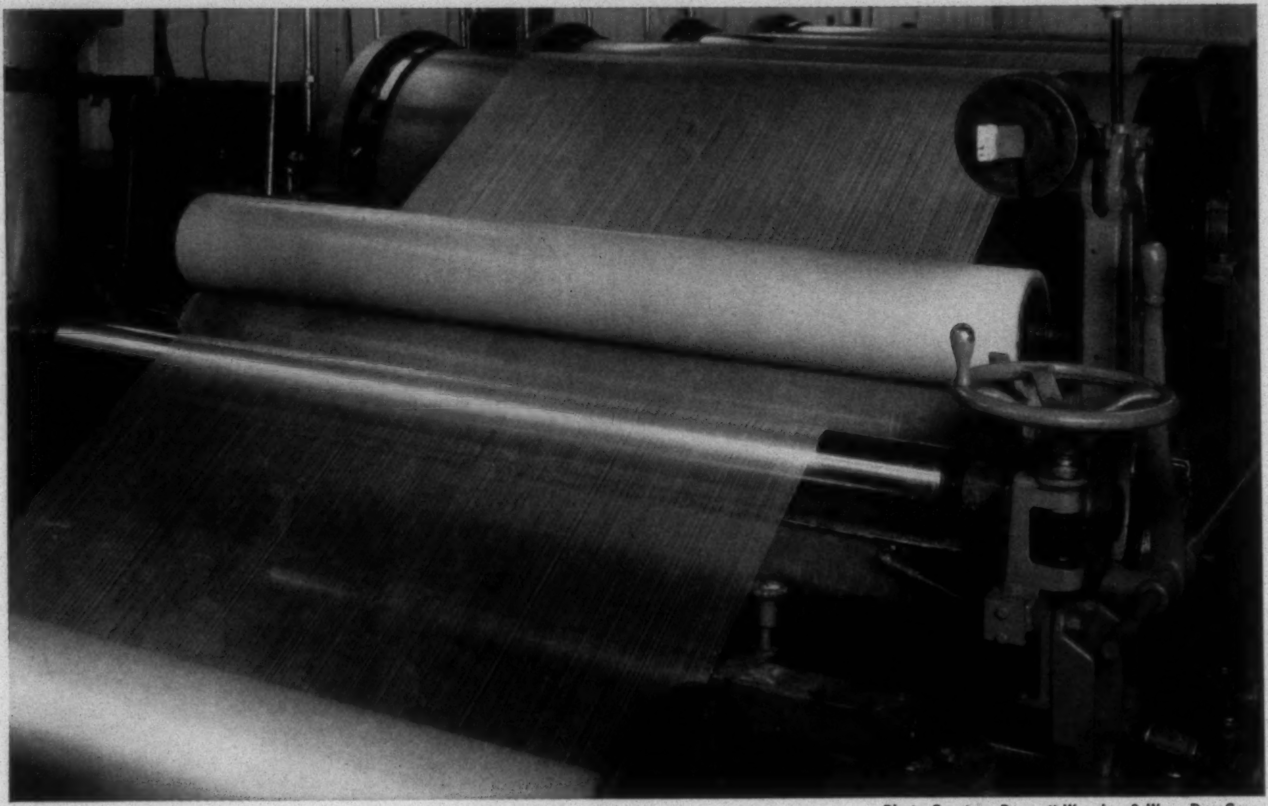

Photo Courtesy Prescott Warping & Warp Dye Corp.

NEW MANHATTAN SLASHER ROLLS ARE YOUR BEST BUY AT SQUEEZE AND DRESSING ROLL POSITIONS

ONLY MANHATTAN SLASHER ROLLS OFFER THIS COMBINATION OF FEATURES:

- Special synthetic rubber compounds control size pick-up to your requirements.
- Uniform, correct roll density assures *uniform, even* pick-up—the finish *you want.*
- Accurate metering of size permits substantial savings in starch costs.
- Distinctive red roll color permits faster, easier detection of yarn-end breaks.
- Keep perfect cushion *without* indentation—eliminate slasher downtime costs to maintain blankets.
- Roll end-caps prevent metal corrosion between cover and metal core.
- Provide highest resistance to starches, gums, softeners, oils or chemicals. Can be reground for longer life.

Let a Manhattan roll engineer show you how to get "More Use per Dollar" with Manhattan Slasher Rolls. Ask about the new Textractor and Texroc Rolls for maximum water removal and longer life on your mangles.

RM1058

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RUBBER
PRODUCTS
...MORE USE
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MANHATTAN RUBBER ROLL DIVISION • NORTH CHARLESTON, SOUTH CAROLINA

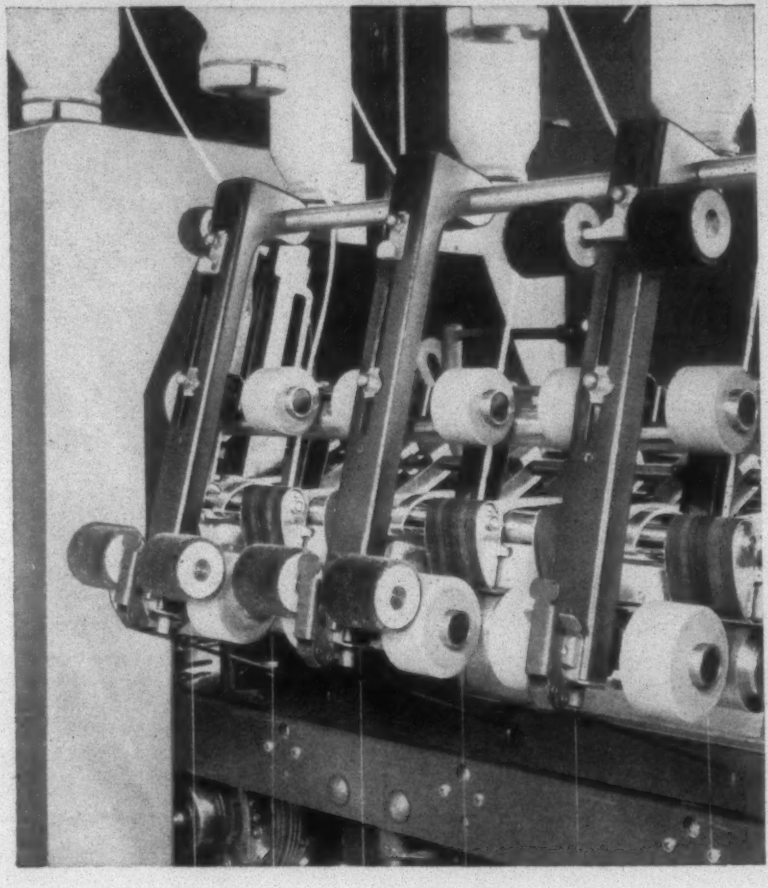
RAYBESTOS-MANHATTAN, INC.

THE MOST VERSATILE AND FLEXIBLE SYSTEM EVER DEVELOPED

long staple spinning

by Saco-Lowell

All ways
FIRST with
the newest



FOR WORSTEDS SYNTHETICS AND BLENDS

This new spinning system offers mills the opportunity to substantially improve quality and greatly reduce production costs. Designed to process worsteds, synthetics and blends in staple lengths from 1.5" to 9" indicating flexibility and versatility never before obtainable. In addition, increased drafts, as much as 50%, with a marked improvement in quality are possible. Complete anti-friction design cuts lubrication time by two-thirds or more, eliminates dirt and lint collecting oil film resulting in reduced maintenance costs.

Long staple drafting is available on the new SJ chassis, improved conventional chassis or as a changeover. This versatile drafting system is also available for roving.

Since 1813

Saco-Lowell Textile Machinery Division
SACO-LOWELL SHOPS
Executive and Sales Offices: EASLEY, SOUTH CAROLINA
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For The Textile Industry's Use

— NEW MACHINERY, EQUIPMENT AND SUPPLIES —

Automatic Cone Winder

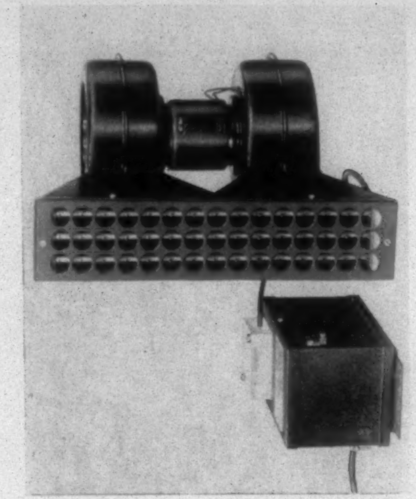
Leesona Corp., Providence, R. I., has developed an automatic cone winder for cotton and other spun yarns which is said to be capable of speeds up to 1,200 y.p.m. The new unit is a drum winder which winds from spinning bobbins to cones and forms a package up to 12 lbs. It utilizes a rotary traverse principle.

There is an automatic knot tyer at each spindle position. This is said to assure that machine downtime associated with breaks due to imperfections in yarn or to supply bobbin runouts will be at a minimum. The automatic knotter is said not only to raise production but to provide versatility in allowing a mill to wind several different counts of yarn on the device without affecting machine productivity.

(Request Item No. F-1)

Static Eliminator

The Simco Co., Lansdale, Pa., has introduced a new long-range static eliminator, called the Aerostat. This new device incorporates a static neutralizer-head in the air outlet of a centrifugal blower and is claimed to neutralize static at distances up to 4' on materials passing through the air stream. The ionization which causes the static elimination is produced in the static neutralizer-head and is carried over these distances in the air from the blower.



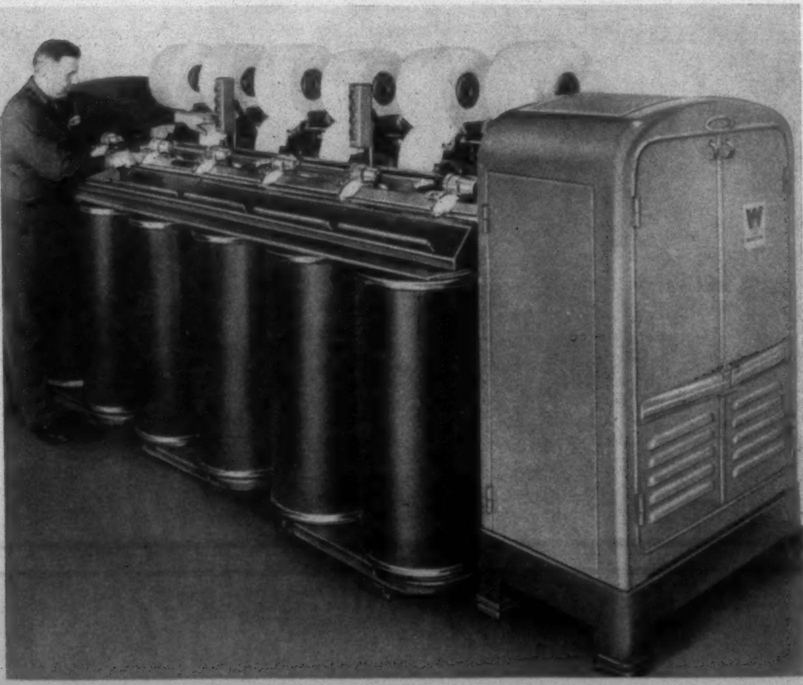
The Simco Co.'s new Aerostat static eliminator is made in 10 and 20-inch lengths. They can be butted together to cover any width, and have an effective depth of field of four feet.

The Aerostat is available in two sizes, the smaller having an effective length of 10" and the larger double unit (shown in the photo) having an effective length of 20". For discharging large parts or wide materials, the units may be butted together to create a continuous neutralizing field of any width extending out from the ionizers to a depth of 4'.

Both sizes of Aerostat are available with standard static neutralizer-heads or with "shockless" static neutralizer-heads. A small power pack will operate a number of the devices.

Aerostats blowing from each side across a loom in the weaving area will discharge both the warp and the filling thread. On creels, a series of Aerostats mounted vertically along one side of each wing will sometimes cost less than the conventional creel installation which requires a static bar at each eyelet bar, Simco reports.

(Request Item No. F-2)



Whitin Machine Works is claiming 400% production increases for its comber.

Whitin Introduces New Wool And Worsted Comber

Whitin Machine Works, Whitinsville, Mass., has introduced a new wool and worsted comber offering production increases up to 400%. Called the Whitin American Comber, it is said to be capable of producing up to 75 lbs. per hour from its six-head delivery.

Designed for the wool combing industry, it is said to be equally efficient in combing wool tops and recombing straight wool or blends of worsted and synthetics.

The new worsted comber closely resembles the Whitin Super J cotton comber and adopts many of that machine's basic features such as motions, setting arrangements and design elements. Operating at a constant 125 n.p.m. speed, the six-head Model M features a greatly simplified design. Departing from conventional wool combers, the detaching roll assembly does not oscillate toward and away from the nipper. This departure eliminates many parts and wear usually encountered in older designs.

The Model M employs the reverse feed principle. The fringe is fed during the backward movement of the nipper frame. While the nipper assembly moves backward, the fringe is combed by 14 rows of needles in the half lap. As the nipper knife opens, the fringe rises and is positioned into the bite of the detaching rolls by a cushion plate and special fringe control blade. Combing and piecing are completed as the stock is drawn through the descending top comb. When complete combing and piecing of the fringe have been accomplished, the new cycle is begun during the next backward movement of the nipper assembly.

The simple detaching roll mechanism is enclosed in an oil chamber and located in the head end. Consisting of a cam, follower and nine-gear planet gear train, the unit does not employ ratchets or clutches. The gear train is always in mesh.

All six heads are adjusted at once with the convenient setting arrangement. Settings are so accurate and free of backlash that

PosiWate

- All three top rolls are ball bearing
- Each roll has two widely spaced ball bearings
- Ball bearings are lint sealed and shielded
- Makes increased weight possible
- Front and back top rolls interchangeable
- Positive weighting and weight distribution
- Same weighting spindle to spindle
- Dead weighting or new cartridge weighting
- Rugged arm pivots on back bar rod
- Exclusive cradle support protects aprons
- Cap bars completely eliminated
- Proper top roll alignment
- Eliminates top arm springs and small parts
- Cots revolve together for easy lap removal
- Standard buffing provides .001 accuracy
- Easy cleaning on roll scouring cycles

A 160,000 spindle mill thoroughly tested virtually all modern drafting systems for a six month period with positive results. Roberts Double Apron Drafting with **PosiWate** Top Roll Suspension produced yarn with the fewest ends down, best breaking strength and evenness. Besides, it was the best liked by the spinners themselves.

Roberts Double Apron Drafting is making quality yarn on more than 3½-million spindles. **PosiWate** Top Roll Suspension has been installed on more than 200,000 spindles in the past year and is being installed as a changeover for more than 30 frames every week.

ROBERTS *PosiWate* TOP ROLL SUSPENSION

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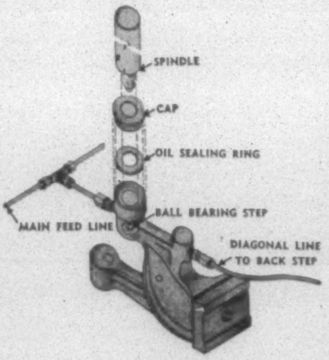
ELIMINATE
TANGLED
ROVING 90%
With
Pressure Lubrication,
Ball-Bearing Step,

you can increase
your spindle speed,
over the
manufacturer's
recommendation,
on a 12x7 slubber,
146 r.p.m., using
50% combernoil
and 50% strict low
middling cotton,
1.45 x square root
of hank roving.

Saves H. P., oil and Labor
Improves quality
No steps to replace
No spindles to be repointed
Increases production
12½%
Increases spun roving 20%



HAMILTON
& SONS
MACHINE &
MANUFACTURING
CO., Inc.
Hannah Picket Ave.
East Rockingham, N. C.

the identical percentage is changed at each head. The heavy construction of the machine absorbs vibration and settings are not subject to shifting.

Large diameter detaching rolls and heavy spring weighting have been applied to the machine to accommodate input weights up to 2,000 gr./yd. One coiler per delivery accommodates an 18x36" can, holding up to 40 lbs. Depending on the length of fiber, the quality of the stock, and the percentage of noils removed, the Model M produces up to 85 lbs. per hour at 100% efficiency with 2,000 gr./yd. input and 10% noils. On recombing, noilages down to 1% can be obtained.

Among the advantages claimed for the new comber are higher production from less floor space, improved sliver control and reduced maintenance, reduction of combing costs and increased profits.

(Request Item No. F-3)

High Temp Bleaching In Matter Of Seconds

As a result of years of research aimed at the development of more efficient textile bleaching procedures, Becco Chemical Division of Food Machinery & Chemical Corp., Buffalo, N. Y., believes it has perfected successful techniques for the continuous bleaching of open-width goods at high temperatures in a matter of seconds.

At Princeton, N. J., in F.M.C.'s chemical research and development center, Becco has underway a program of process development that utilizes the accelerated reaction of hydrogen peroxide at high temperatures —in the neighborhood of 265° F.—which are developed in a sealed chamber under pressures up to 25 lb. psig. To assist in this development work, Becco has recently installed at Princeton the new Pressure-Lok continuous bleaching machine, built to Becco's specifications by James Hunter Machine Co., North Adams, Mass.

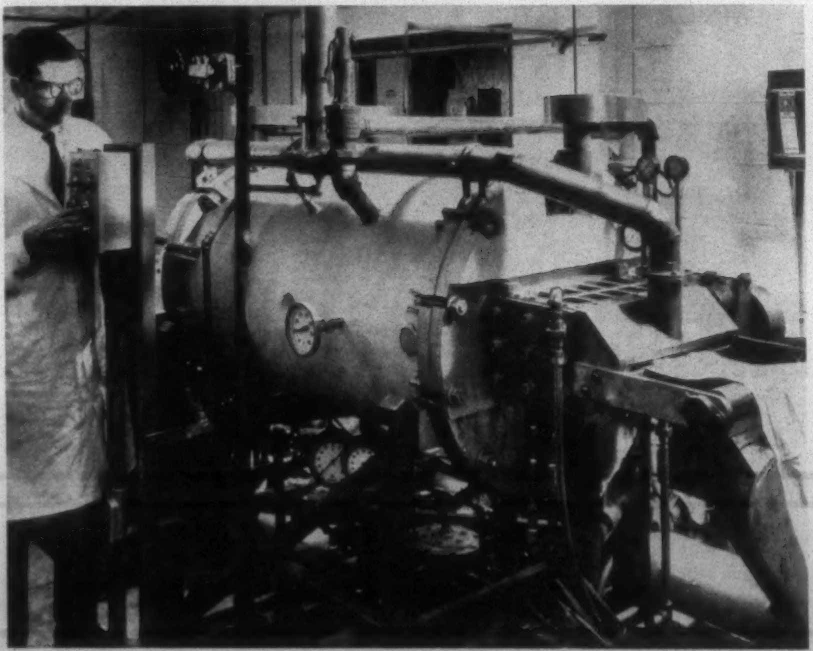
In this new machine the first series of test bleaching runs—on a variety of cotton fabrics—was recently completed successfully with significant results. The goods were in the machine for approximately 60 seconds under pressures of 22 to 24 psig.—which raised the ambient temperature to approximately 265° F. At these temperatures, the bleaching reaction of the hydrogen peroxide is markedly accelerated, so that an excellent prepare for dyeing and a satisfactory increase in whiteness—uniform throughout the goods—was obtained even in the brief 60-second pass, Becco reports.

The goods were carried through the chamber on a series of rollers which keeps the goods taut throughout the pass and prevents their rubbing against the walls of the chamber or against themselves. This prevents creasing and eliminates any staining or marking of the fabric.

The Pressure-Lok seal at the entrance and exit from the chamber — designed and patented by Hunter—consists of specially designed seal rolls, and permits high pressure in the chamber which is maintained without undue loss of steam. This elevated pressure raises the temperature of the process steam within the chamber.

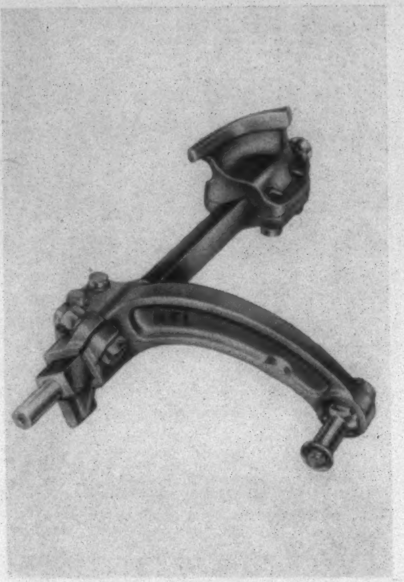
The new Becco Super-Steam procedures for continuous pressure bleaching which are in the course of being perfected will fit easily into established open-width preparation routings, it is reported. The new equipment can be used with existing washers, squeezers, castic saturators and peroxide saturators, in most cases.

(Request Item No. F-4)



Being developed on this new Pressure-Lok continuous pressure bleaching machine are the new Becco Super-Steam procedures for continuous pressure bleaching of open-width goods at high temperatures in a matter of seconds. The Pressure-Lok seal at the entrance and exit from the chamber consists of specially designed seal rolls, and permits high pressure in the chamber which is maintained without undue loss of steam.

Picking Motion Parts



Precision machining of HFL picking motion parts for C&K loom eliminates need for compensation for variations in cast parts.

New precision-machined picking motion parts designed for C & K looms are now made available by the H. F. Livermore Corp. of Boston, Mass., and Greenville, S. C.

According to the company, the need to compensate for variations in castings, usual with conventional picking motion parts, has been eliminated in the new picking motion assembly. This improvement is said to have been made possible through precision machining of high carbon steel and malleable pearlitic alloys. The parts are designed to give greater picking efficiency, prolong shuttle life, and reduce downtime due to breakage.

Picking shoes are of high carbon alloy steel, heat-treated (Rockwell 62-66) for maximum strength and resistance to wear, with case depth of $\frac{1}{16}$". Precision machining is said to assure smooth, uniform picking on any C & K loom.

Use of Pearlitic malleable alloys, with tensile strength of 80,000 p.s.i. and 60,000 yield instead of gray iron (25,000 to 30,000 p.s.i., no yield strength) has permitted design and fabrication of parts like the pick arm stud, pick shaft stop, and pick roll arm stud and ball of far less weight, but with many times the normal ability to absorb repeated impact shock loads, Livermore reports. The pick shaft, of alloy steel with fine-grain cross section, is shot peened to eliminate surface cracks and increase fatigue strength. (Request Item No. F-5)

Crimped Yarn Unit

The development of a new versatile machine to produce package-dyed crimped yarn has been announced by Joseph Bancroft & Sons Co., Wilmington, Del., owner of the Ban-Lon and Textralized trademarks.

Known as the Model 88 or core crimper, the newly developed machine is said to make possible package-dyeing of crimped yarn, maintenance of high bulk level, and the possibility of crimping a much wider variety of fibers and filaments.

Designed by Bancroft engineers and produced under their direction by the Foster Machine Co., the Model 88 crimpers are now being subjected to practical in-plant commercial applications on a field-test basis. Experimental units of the equipment have been shipped to many of the company's yarn licensees.

One of the immediate important advantages of the development, according to Bancroft technicians, lies in a method of operation that makes package-dyed crimped yarns available for the first time in the industry. Up to now, modified filament yarns of this type were either skein-dyed or muff-dyed. Package-dyeing in this case is more efficient than skein-dyeing or muff-dyeing, and is preferred for its better uniformity of both dye and yarn, as well as for its versatility and for the handling of larger dye lots. However, package-dyed yarns previously were impossible to produce because of the extremely high loss of bulk in the yarn which resulted from this method of dyeing, according to Bancroft.

By eliminating this loss of bulk, the Model 88 crimper is said to enable Bancroft licensees to package-dye Textralized yarns and still maintain the desired bulk level. The degree of bulk attained in experiments so far has been extremely high, Bancroft reports.

The company says that the results of package-dyeing which the crimper makes

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ROCK HILL, S. C. - Phone 2026
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Austell, Ga., - Phone 5338

possible are very encouraging, even at this early stage. Jacquard patterns show up amazingly sharp and clear, in well-defined patterns. Single-color fabrics appear clear and uniform, with a satisfying depth.

Bancroft reports that the machine has not yet been perfected to the degree that assures maximum efficiency, but said it is enthusiastic over its present performance and future potential.

(Request Item No. F-6)

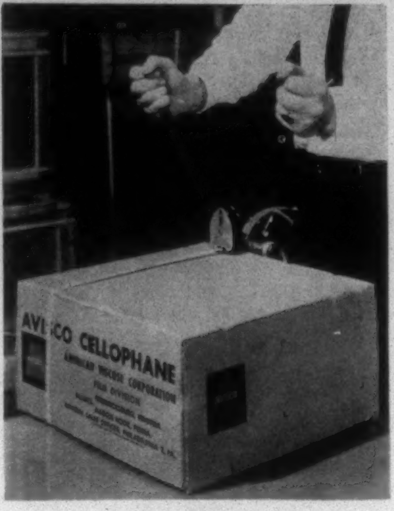
Cord Strapping

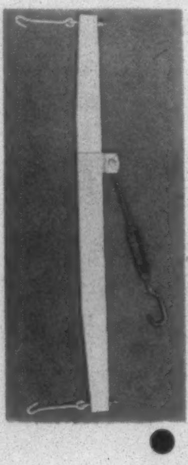
American Viscose Corp., Philadelphia, Pa., has established an industrial packaging department and announced the new unit's first product, Avistrap cord strapping.

The new cord strapping, which has patents pending, is said to offer shippers new advantages in packaging. Foremost among the claimed advantages are economy, ease of handling, and safety. Made of high-tenacity rayon cord, the strapping is said to have ample strength for many industrial applications.

Because Avistrap strapping weighs 1/4 to 1/7 as much as steel strapping, of comparable strength, shipping costs are said to be greatly reduced.

Avistrap is said to be easy to handle since the coils weigh approximately 21 lbs., complete with disposable spool, in a yardage equal to a 100 lb. coil of steel strap. Avistrap coils may be changed in seconds, and there is no unwrapping or complicated changing of reels. The empty spool may be thrown away, and the next strapping job started immediately.





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HARDWOOD WEAVE ROOM SUPPLIES

Pulldown Jacksticks & Parts
Laminated & Hickory Picker Sticks
Dobby & Harness Sheaves
Binders
Shuttle Pegs, Round & Square
Loom Flags
Race Boards
● **Leather Products**
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Prompt Service & Best Quality

Write for Samples and Prices on Binders covered with Armstrong Composition No. CN889.

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COMPANY, INC.
Greenville, S. C.
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There are no sharp edges on the strapping, thus eliminating danger of cut hands or other accidents in packaging operations. If over-tensioned, Avistrap does not last out with jagged ends.

The cord strapping is easy to handle and compact, and may readily be disposed of by burning.

Damage is said to be sharply reduced in all respects since the flexible cord strapping tightens around corners without cutting cartons. When properly tensioned it cannot harm merchandise and Avistrap will not rust.

It may be imprinted with company or product name, or both, for very low cost. It comes in long coil lengths on disposable spools, cutting down-time on packaging lines because fewer changes of strapping are needed and the light spools may be quickly changed.

A 1,000-yd. spool of heavy-duty Avistrap measures 13½" in diameter and is 6" wide, and it weighs one-fifth of a comparable amount of steel strap.

(Request Item No. F-7)

Dispersed Green

A new dispersed dye has been developed especially for polyester fibers by the Althouse Chemical Co., Reading, Pa., a division of Crompton & Knowles Corp. The dye, designated as Dacryl Green LFG, was developed to fill a necessity for a true green which previously was lacking in the dispersed color lines, Althouse reports.

In addition to applications for the polyester fibers, Dacryl Green LFG can also be applied to the usual acetate and polyamide fibers.

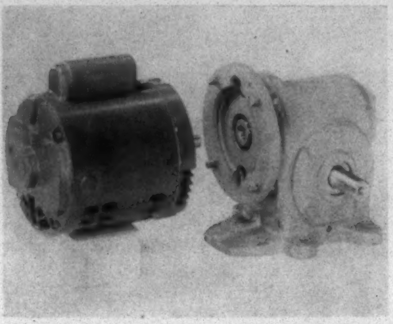
The new green is said to have excellent fastness to washing, dry cleaning, sublimation and light when applied to the polyester fiber and is recommended for maximum fastness properties.

The new green may be applied to the polyester fiber at normal dyeing temperatures with conventional carriers or it may be applied at elevated temperatures without the use of any carrier. It is said to have excellent stability at elevated temperatures.

Althouse reports that the new dye exhausts well in neutral bath and has superior pile-on properties. It is recommended for the dyeing of stock and yarn, as well as fabrics.

(Request Item No. F-8)

Gearmotor

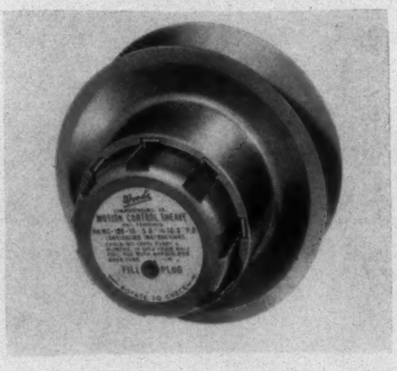


Maximum versatility and adaptability are said to be featured in a new Morse Eberhardt-Denver C-flange gearmotor developed by Morse Chain Co., Ithaca, N. Y. A wide range of capacities and reductions are available off the shelf. Motor and reducer are separate, flange connected, so the unit is furnished either as a complete assembly, or the reducer alone will be supplied for application to the customer's standard N.E.M.A. motors. When drive conditions change, either motor or reducer may be changed without scrapping the other element, Morse reports.

Capacities range from 1/12 to 2 h.p., reductions from 5:1 to 60:1. Reductions are in increments of 5's up to 30:1. From 30:1, increments are by 10's.

(Request Item No. F-9)

Variable Speed Sheave



Two additional sizes of MS variable-speed sheaves have been introduced by T. B. Wood's Sons Co., Chambersburg, Pa. The new additions are MS-100-10 (10 h.p. at 1,750 r.p.m.) and MS-100-15 (15 h.p. at 1,750 r.p.m.). Both have maximum pitch diameters of 10". The horsepower ratings are based at constant torque and for maximum speed, that is at maximum pitch diameter.

MS variable-speed pulleys incorporate a design that is said to eliminate fretting corrosion as well as freezing and sticking. Instead of keys in the bearing surfaces to establish constant point-contact and obstruct lubrication, the units have a series of tor-

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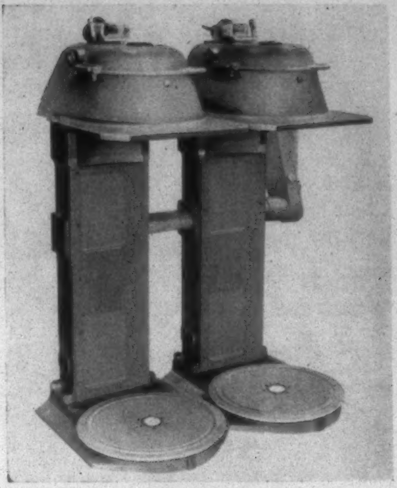
sionally resilient rubber keys located outside the bearing surfaces to transmit the belt torque. Bearing surfaces are re-oiled with each rotation of the pulley. The continuous rotational pumping action of the flange hub on the sleeve is said to constantly renew and evenly distribute the oil film on the bearing surface.

Pulleys are designed to run indefinitely at set speed without freezing from fretting corrosion. Under conditions of normal operation, the oil reservoir is said to require checking only twice a year.

Wood's reports that the sheaves require less space than any other spring-loaded, motion-control type. They are designed for use with angled motor bases and V-groove companion sheaves to provide a V-to-V drive. Use of the V-groove companion sheaves reportedly results in higher r.p.m. and greater horsepower output than can be achieved when flat companion pulleys are used. The new units bring the number of models in the series to seven—covering a range of from 2 to 15 h.p.

(Request Item No. F-10)

Can Coiler And Turntable

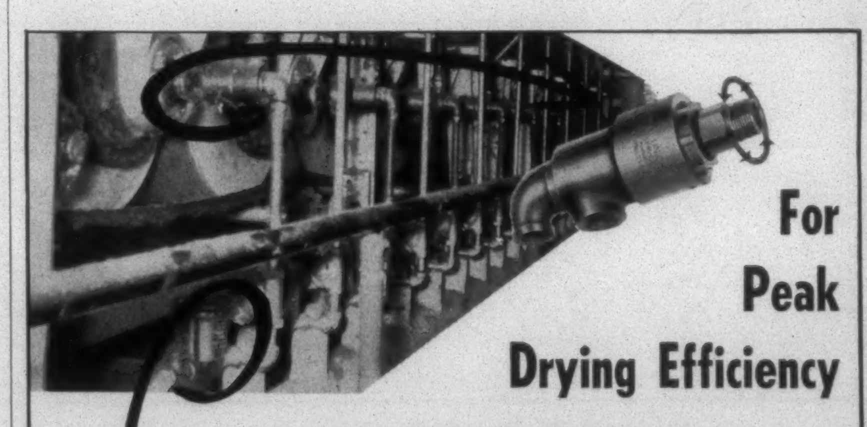


Warner & Swasey's new high speed can coiler unit, designed to accommodate 18", 20" or 24" cans, up to 42" in height, developed for application to Pin Drafter Intersecting Draw Frames.

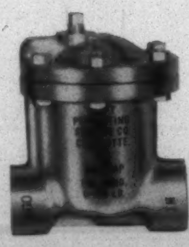
A new high speed can coiler unit, designed to accommodate 18, 20 or 24" cans, up to 42" in height, has been developed by The Warner & Swasey Co., Cleveland, Ohio, for application to Pin Drafter intersecting draw frames.

Of the pusher type, the new coiler will handle sliver weights ranging from 50 to 1,050 gr./yd., traveling at 500 ft./min. Drive for the coiler rotor and turntable is a combination chain and gear train, with variations in speed and direction of turntable rotation said to be obtained easily by substituting different changegear combinations.

The coiler support and turntable base of the new unit, which is free standing, are designed so that multiple groups can be set up by mounting single units side by side. This feature is said to increase the new



For Peak Drying Efficiency



The combination delivers a steady flow of hot dry steam to all types of textile dry cans. It assures much faster warm-up, requires no adjustments, and materially reduces downtime.

Syphon Type ROTARY UNION* (above)

A self-aligning and self-adjusting precision mechanical seal which maintains a leakproof connection without mechanical maintenance. Unique syphon support prevents loosening, breaking, or falling off of syphon pipe.

Model 70T UNITRAP* (left)

An inexpensive bucket-type steam trap with a universal pressure range from 0 to 125 lbs. and a capacity up to 1000 lbs. per hour. Stainless steel working parts assure long and trouble free service.

Write for Bulletin 700 and 825.

*Trade Name - Patented

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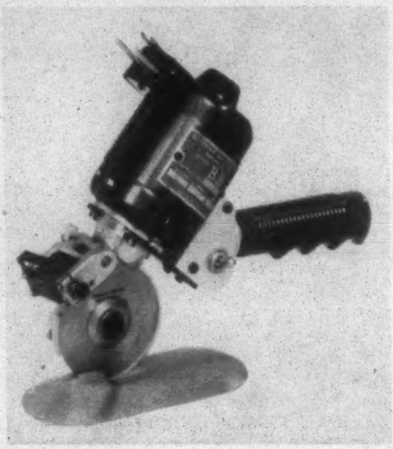
coiler's versatility substantially in current mill applications.

Anti-friction bearings are used throughout the operating mechanism in order to eliminate most oiling requirements and lessen the danger of stock contamination.

(Request Item No. F-11)

Round-Knife Cutter



A new "baby" size round-knife cutting machine, designated Model BB, which weighs less than 3 lbs. and is fitted with a 2½" knife, has been introduced by the Eastman Machine Co., Buffalo, N. Y. The new unit stands only 7" high.

Among the improved features cited for the machine are: an Eastman-designed motor, precision-balanced and equipped with permanently oiled-and-sealed motor bearings that will never need attention; special alloy spiral gears to drive the knife at top speed smoothly and quietly; an improved lubricating system; and a plastic-coated finger-notched handle to assure a firm, slip-free grip for positive control.

The machine will cut a single ply or several layers up to ½" high. The new model was designed particularly for small shops, and for cutting trimmings and individual or sample lots.

With this new unit, Eastman round knife cutters are now available with blades running from 2½ to 7½"

(Request Item No. F-12)

Hydraulic Calender

Morrison Machine Co., Paterson, N. J., has developed a new hydraulic calender, marking its re-entry into that field. The calender has a special steel framework, eliminating castings, that is said to make it easier to erect. The unit is a 3-roll, 40-ton pressure machine. Two rolls are steel and the other is a husk-filled roll. It has a 60" face.

The company has also developed a 3-roll, 15-tone padder with a 70" face. A diaphragm cylinder is used and an air-set type nip is achieved. Two 20" rolls with an 18" roll in between are said to give a better squeeze for the all-purpose unit. It may also be used as a water mangle or for bleaching.

Another unit being offered by Morrison is a 5-compartment washer including four 5-ton nips and one 10-ton nip. A serpentine tank has water flowing counter to the running of the cloth.

(Request Item No. F-13)

Synthetic Belt

The Charles A. Schieren Co., Worcester, Mass., has developed a new all-synthetic belt called Revo. The new belting is designed to meet present large pulley ratios and high running speeds. It combines oriented nylon bands and specially woven cloth for what is said to be outstanding tensile strength and elasticity. A frictionized surface of Urethane covers the pulley side.

Special processing of the nylon bands in Revo permanently sets their molecular structure, the company reports. As a result the belt is said to be stretch-free. It gives under loads but returns to its original length or tension. The belting is said to run without take-ups or idlers when properly installed.

Other features claimed for Revo are: high strength; good resistance to high temperatures and humidity, oils and many acids; and it can be made endless in a few minutes.

The Schieren Co. is represented by H. E. Crawford Mill Supply Co., High Point, N. C. (Request Item No. F-14)

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*Trade Name Patented

KLUTTZ RINGS, INC. Gastonia, N. C.

Representatives: Thomas H. Watson, Malden, N. C. • Hugh K. Smith, West Point, Ga.

For the Mill Bookshelf

Automatic Cooking System

A new bulletin from A. E. Staley Mfg. Co., Decatur, Ill., describes the Staley high-solids Jet Cooker, a continuous automatic cooking system designed for high-solids finishing preparations. The system is adaptable to a variety of formulations and produces uniform-viscosity pastes to obtain more even size pickup with uniform shadings of colored fabrics and savings in mix requirements, Staley reports.

(Request Item No. F-15)

Worm Gear Speed Reducers

"Worm Gear Speed Reducers," Book 2824, is a 66-page publication from Link-Belt Co., Chicago, Ill., that introduces the company's new line of fan-cooled worm gear speed reducers in 25 types and over 135 sizes. The units are available in ratios ranging from 5:1 to 3600:1, with torque ratings up to 135,000 pound inches and horsepower ratings up to 150.

The new book is illustrated with many application photos and lists equipment on which these reducers are frequently used. The new speed reducers have housings that are said to combine strength, rigidity and ample cooling area. The fan cooling and other design refinements allow the size of these units to be reduced while retaining their high load carrying capacities.

Selection data includes tables arranged according to speed as compared to ratio, with the full complement of reducer sizes listed on individual pages for given r.p.m. Thermal input and mechanical output torques are shown for every speed and ratio for each reducer size.

(Request Item No. F-16)

Sludge Collector

Publication of a 6-page bulletin, 315-6A1, on its new Rex circular scraper sludge collector has been published by the conveyor and process equipment division of Chain Belt Co., Milwaukee, Wisc.

The bulletin introduces the new Rex circular scraper collector and scum remover that is the first in a new line of scraper and kimmer mechanisms designed to meet specific requirements of industrial treatment plants. It outlines design, installation, and operating advantages and contains detailed cross-section drawings of a typical scraper mechanism. In addition, it presents exploded illustrations of the new Rex scum collector, drive assembly, skimming device and typical truss section components.

The new unit is said to combine high collecting efficiency with low power requirements, low maintenance costs, long service life, low initial costs and easy installation.

(Request Item No. F-17)

Air Conditioning

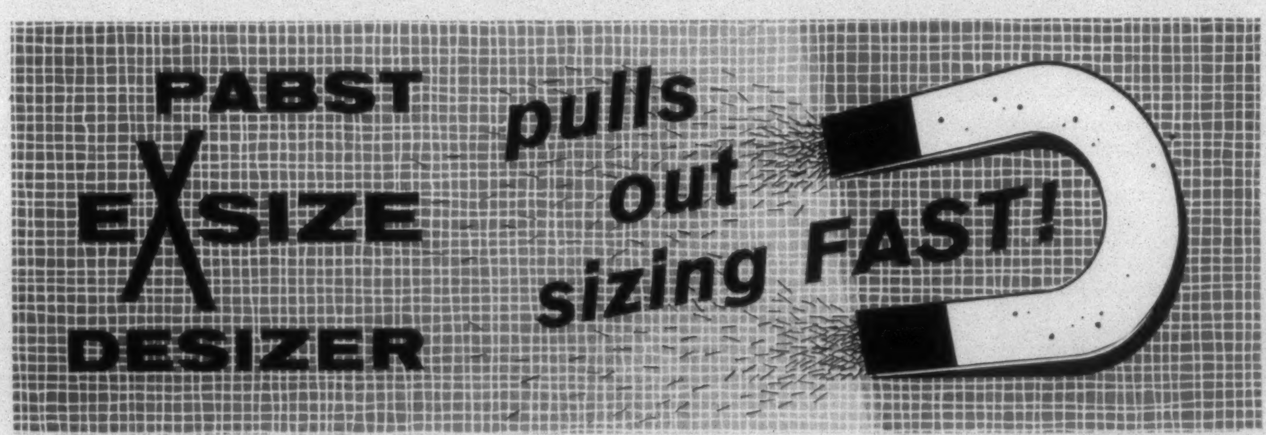
How to determine whether plant air-conditioning will be a profitable investment is the subject of a new booklet prepared by Carrier Corp., Syracuse, N. Y.

Entitled "Will Factory Air Conditioning Pay Off For Me?", the booklet presents four key check-figures with which plant executives can qualify their operation. Two or more affirmative answers indicate that air conditioning would not only pay for itself but would return a profit on the investment. (Request Item No. F-18)

Heated Gages And Valves

Jerguson Gage & Valve Co., Burlington, Mass., has published a 4-page bulletin, Data Unit No. 363, giving detailed information on Jerguson heated gages and valves which have wide application where liquids must be kept at higher than ambient temperatures for process reasons or to hasten the speed of response to level changes.

(Request Item No. F-19)



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Serving The Textile Industry

Stock Split Proposed For Crompton & Knowles

Directors of Crompton & Knowles Corp., Worcester, Mass., have recommended a two-for-one stock split. The split will be considered at a special stockholders' meeting to be called in the near future.

For the first quarter the company reported net earnings of $628,000 on sales of $7 million. This compares with earnings of $179,000 on sales of $4.8 million in the first quarter of 1959.

Celanese Corp. Awards Three College Schloarshiips

The Celanse Corp., New York City, has awarded three four-year college scholarships. Celanese provides full four-year college scholarships for employees' sons and daughters who become finalists in the annual competition conducted by the National Merit Scholarship Corp.

Du Pont's New Dacron Plant Now In Limited Production

The Du Pont Co.'s new multi-million dollar plant to produce Dacron polyester fiber began commercial production on April 19 at Old Hickory, Tenn. The facility adjoins the company's rayon and cellophane plants and the recently completed unit which is making dimethylterephthalate—the principal ingredient used in the manufacture of Dacron.

Approximately 500 people are employed in the new enterprise in addition to about 1,500 engaged in producing rayon which has been made at Old Hickory since 1925.

The unit which recently started up is only part of a whole new plant which will not reach its full production stage for many more months, Du Pont said. When it is in full production, the plant will be capable of producing 56 million pounds annually of Dacron staple and filament products.

Initial production at Old Hickory will be almost exclusively 1.5 denier Dacron—a product specifically designed for use with cotton in blends.

Maremont Products Buys 23% Of Saco-Lowell Stock

Maremont Automotive Products Inc., Chicago, Ill., has acquired 127,500 shares of Saco-Lowell Shops common stock through open market purchases in recent months. Maremont said the purchases, which represent about 23% of Saco-Lowell's outstanding stock, "are an investment in a basic American industry which has a very good long range potential." No merger of the two companies is being contemplated at the present time, it was reported.

The Chicago company is a producer of replacement auto parts, including muffler and exhaust systems, brake linings, blocks and shoes, clutch pressure plates and clutch assemblies.

Saco-Lowell, which also supplies some parts to the automotive and agricultural implement industries, had a net profit of $226,568 in the quarter ended February 29 compared with a loss of $1 million in the same quarter a year ago due in large measure to non-recurring costs incident to relocation of its textile machinery manufacturing facilities in the South.

Maremont had net profits of $333,500 in the quarter ended March 31 on sales of $6 million. That compares with net profit of $336,900 on sales of $6.6 million in the like quarter a year ago.

Cluett, Peabody Profit Doubles In First Quarter

Cluett, Peabody & Co., New York City, reports net profits after taxes of $1.2 million in the first quarter ended March 31. This was nearly double the net profit of $624,875 reported for the first quarter of 1959. Sales for the first quarter totalled $26.2 million as compared with $23.9 million in 1959. Before taxes profit was $2.8 million as compared with $1.5 million a year earlier.

Johnson Motor Lines Building New Facility

Construction has begun on the future operational home of Johnson-Atlantic States Motor Lines, Charlotte, N. C.

The center for the Johnson-Atlantic States operation will be located on a 34-acre tract. The terminal office will be a two-story structure with over 19,000 square feet of completely air-conditioned floor space, including offices, rest rooms and a large recreation area suitable for group meetings and lunch room space. The new facility is expected to be completed by August.

Warner & Swasey Expects '60 Sales To Be Up 25%

Textile sales of Warner & Swasey Co., Cleveland, Ohio, in 1960 are expected to show a 25% increase over the $3.9 million reported in 1959. Walter K. Bailey, president, told the regular meeting of the Cleveland chapter of the Society of Security Analysts in Cleveland.

The over-all volume of the company for the year, he predicted, will be approximately $62 million, compared with $56.6 million last year. Bailey said the company's shipments for the first quarter of 1960 were the best in the firm's history, with income for the first quarter totaling $16.1 million as compared with $13 million last year in the first quarter.

Nopco Chemical Co. Lists Vacation Schedules

Nopco Chemical Co. and its Metasap Division have announced plans for their annual two-week vacation shutdown.

Nopco's plants in Harrison, N. J., will be closed down August 6-21; its Cedartown, Ga., plant will shut down from July 2-17; and its Richmond, Calif., plant will close July 30 and open again August 15.

Jacques Wolf & Co., a Nopco subsidiary, will shut down its production facilities from July 2-17.

General Plastics Reminds It's Teflon Coating Time

General Plastics Corp., Paterson, N. J., has issued a reminder that the mill vacation period is a good time to have production equipment Teflon coated or recoated. General Plastics is making arrangements to concentrate on this work during the first two weeks of July. Teflon coating is being scheduled so equipment can be returned to the mill and installed before resuming production.

C. H. Patrick & Co. Plans New Plant

C. H. Patrick & Co., producer of products for the bleaching, dyeing and finishing industry, plans to build a new plant on a nine-acre tract on the outskirts of Greenville, S. C.

Additional new equipment will be installed in the new plant and production will be greatly increased. No details of cost or construction were given.

Nylon And Tyrex Tire Cord Battle Continues Unabated

Philip B. Stull, president of American Enka Corp., told stockholders of the company at their recent annual meeting in Enka, N. C., that "it now appears that 1961 model automobiles will continue to carry Tyrex cord tires as original equipment." American Enka last year was the largest producer of Tyrex tire yarn.

In commenting on the struggle between Tyrex and nylon for the tire cord market, Stull said that "the battle is now focused on 1962 and beyond, which takes us too far into the future to permit prediction. We can say, however, that the battle is joined, the forces mobilized, and that our co-operative Tyrex promotion program with other members of the industry will be vigorously pressed during the coming year."

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1926 "IF IT'S PAPER" 1960

struggle," Stull told stockholders, "we will not be left out of this market should the fight be lost to nylon. The first units of our heavy denier nylon facilities should be completed this Fall, and these facilities can and will produce nylon tire yarn."

Stull reported that real progress has been made in reducing the company's dependence on a single product. Tire yarn has dropped from 61% of total dollar sales in 1955 to 37% in 1959, while sales of rayon textile yarn during the same period dropped from 36% to 24%. Rayon staple fiber sales have risen from 10% in 1957 to 12% in 1959, and nylon sales have risen from 2% in 1955 to 13% of the 1959 dollar sales volume. Plastic-covered wire and cable accounted for 14% of the total sales. The company looks for significant earnings from its wire and cable business and prospects are said to be promising for the development of new dielectric products for its Brand-Rex division.

Texize Chemicals Enlarges Greenville, S. C., Plant

Enlargement of facilities that will double the production capacity of the Greenville, S. C., plant of Texize Chemicals is nearing completion. Installation of new processing equipment in newly constructed additions to the mixing and manufacturing plant will enable the company to step up its production. In addition, storage capacity for finished products has been increased by 75,000 gallons and raw material storage space has been increased slightly.

Installation of semi-automatic filling equipment for bulk products in 5, 15, 30 and 55-gallon containers has sharply increased production in that area.

The two-story brick, steel and concrete additions to the plant will add more than 13,500 square feet of working space. New equipment being installed includes modern floor wax manufacturing facilities.

Daniel Construction Co. Opens N. C. Division Office

Daniel Construction Co. has opened a new North Carolina division office in Greensboro, N. C. The new office is in the Brown Building at 440 West Market Street.

Daniel is currently building the new Chemstrand research laboratory in the Research Triangle at Durham, N. C. Other industrial projects now under construction by Daniel in North Carolina include a fiber glass plant for Pittsburgh Plate Glass Co. at Shelby, and a synthetic fiber plant for Fiber Industries at Earl.

Eldon F. Matteson has been named North Carolina division manager.

National Ring Traveler Purchased By Salmansons

All the stock of National Ring Traveler Co., Pawtucket, R. I., has been sold to a group headed by Barnett Salmanson, treasurer and founder of Adams Drug Store Chain. National is now headed by Leonard I. Salmanson, president of Adams Drug. Norman Jerome, formerly vice-president of National, is executive vice-president. Other officers are: Donald Salmanson, second vice-president; Charles Salmanson, treasurer; and Samuel Salmanson, treasurer.

The purchase price was not disclosed. National will continue in operation and plans are being made to expand sales.

Hartford Fibres Co. Plans Zantrel Plant

Hartford Fibres Co. has announced plans to build a plant for the production of Zantrel polyester fiber in Rocky Hill, Conn. The plant is expected to be completed and in production by September.

At the present time Zantrel is being imported from the Gauchy, France, plant of Gia. Industrielle de Textiles Artificiels & Synthetiques. Initial yardage of apparel fabrics containing this new fiber is already reaching the American consumer.

In addition, Hartford reports, a large number of fabrics are being developed by a group of selected weavers for leading converters and manufacturers of men's, women's and children's wear and will be ready for Spring 1961 at the retail level.

Livingston & Haven Adds Parker-Hannifin Products

Franchisement of Livingston & Haven Inc., Charleston, S. C., and Charlotte, N. C., as a distributor of Parker industrial tube and hose fittings has been announced by the Parker-Hannifin Corp., Cleveland, Ohio. The fittings, widely used in fluid-handling circuits, are made by the corporation's Parker Fittings & Hose Division with plants in Cleveland and Eaton, Ohio. The distributor's Charlotte branch is franchised also for Crown air pressure regulators, air filters and lubricators, products of the Hannifin Co. division in Des Plaines, Ill.

American Pulley Now Van Norman Division

The merger of The American Pulley Co., Philadelphia, Pa., including its Hubbard Spool Division, into Van Norman Industries, has been completed. The merger involves the issuance of two shares of Van Norman common stock for each share of American Pulley capital stock.

The American Pulley Co., founded in 1895, is a pioneer in the power transmission industry and also manufactures a wide line of material building equipment. Van Norman operates a number of diversified divisions including H. W. Butterworth & Sons, Bethayres, Pa.

Anderson Machine Shop To Produce Pacific Coiler

Burlington Industries Inc., Greensboro, N. C., has licensed the Anderson Machine Shop of Needham Heights, Mass., to manufacture and sell the Pacific Coiler for which Burlington holds the patent rights.

No royalties will be payable, and no license will be needed from Burlington by purchasers of the machine from Anderson.

This machine is used to coil the sliver from cards, gill boxes and the Pacific Converter into cans. It automatically presents to the boiler head an empty can which is filled to a pre-determined weight of sliver. Upon reaching this pre-determined weight, the can is automatically doffed and moved and another empty can is moved into position at the coiler head for filling continuously without attendance. This allows the operator to remove the filled cans at his convenience.

In addition, the Pacific Coiler is said to make a more uniform package and to allow up to 50% more stock per can. This permits longer runs in subsequent operations and fewer piecings, resulting in better quality work. It does not require the use of cans for storing the packages or for use in the next operation.

First Quarter Earnings Off For The Du Pont Co.

The Du Pont Co., Wilmington, Del., reports consolidated net earnings of $98.9 million in the first quarter ended March 31. This compares with $101.6 million in the like period of 1959.

Net income from operations was $65.4 million as compared with $69.5 million in the first quarter of 1959. Net income from other sources, including dividends from General Motors common stock, was $33.6 million as compared with $32.1 million in 1959.

Sales for the period totalled $535.3 million against $506.6 million in 1959.

First Quarter Sales Up At Celanese Corp.

Celanese Corp. of America reports net income of $4.8 million for the three months ended March 31, 1960. The three months' earnings compare with 1959 first-quarter earnings of $4.9 million.

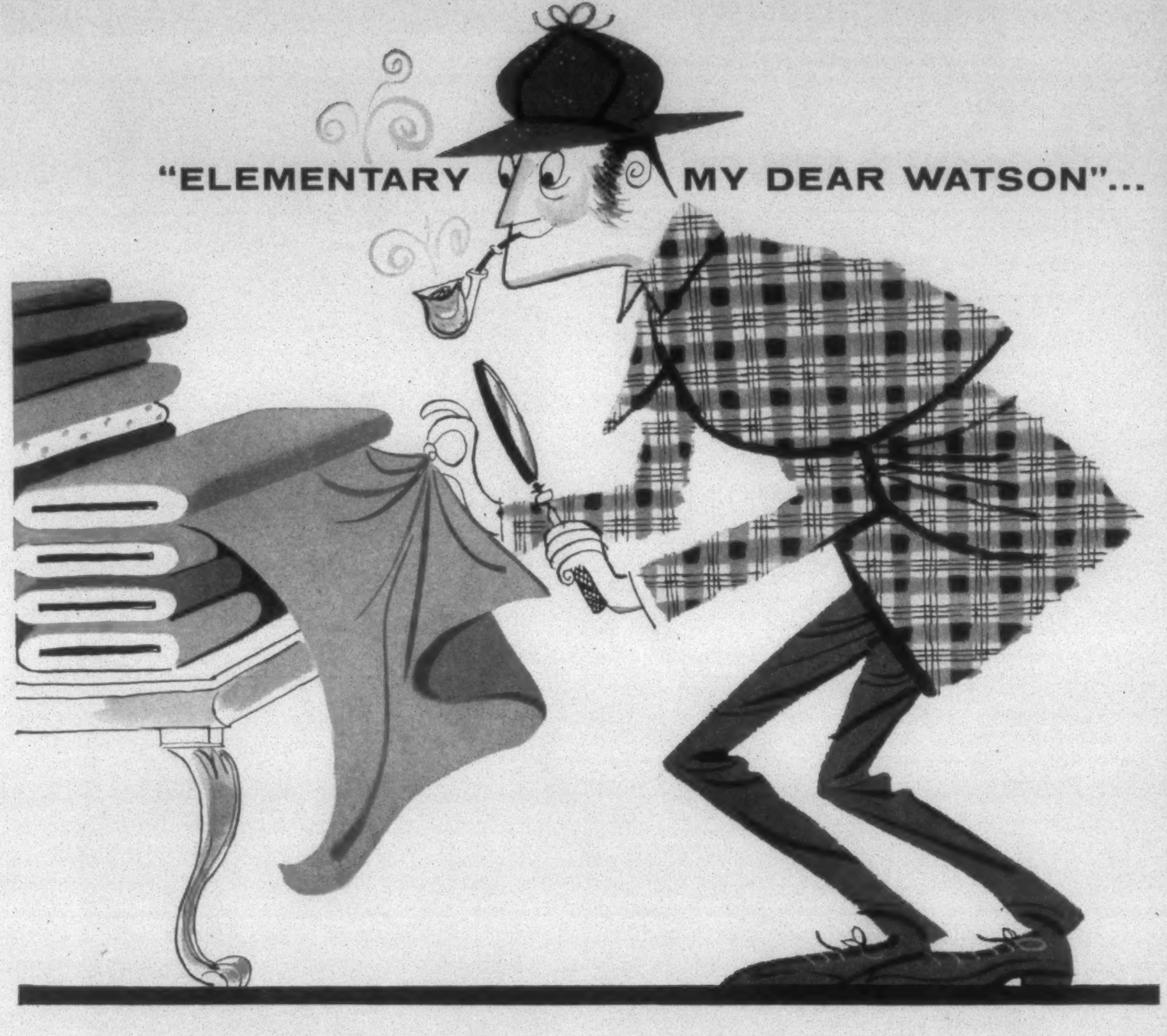
Net sales for the first three months of 1960 amounted to $66.7 million, highest for any first quarter in the corporation's history. They were 13.3% above the $58.9 million reported for the same period of 1959.

Crompton & Knowles Corp. Acquires Firmaline Products

Crompton & Knowles Corp., Worcester, Mass., has acquired Firmaline Products Inc., Midland, N. J., as part of its diversification program. The purchase price was not revealed. Firmaline produces reinforced plastics with end-uses in the electronic, chemical, marine and transportation fields.

The company will be known as Firmaline Products of Crompton & Knowles Corp. Firmaline's 40,000-square-foot plant will be enlarged, according to Crompton & Knowles. Robert W. Lade, formerly president of Firmaline, becomes vice-president. This production will supplement that of Beetle Plastic Co. of Fall River, Mass., another Crompton subsidiary. Lade also becomes vice-president of Beetle.

Other Crompton & Knowles subsidiaries are Althouse Chemical Co., Reading, Pa., which specializes in textile dyes and chemicals, and Warp-King, Holyoke, Mass., a packaging machinery firm.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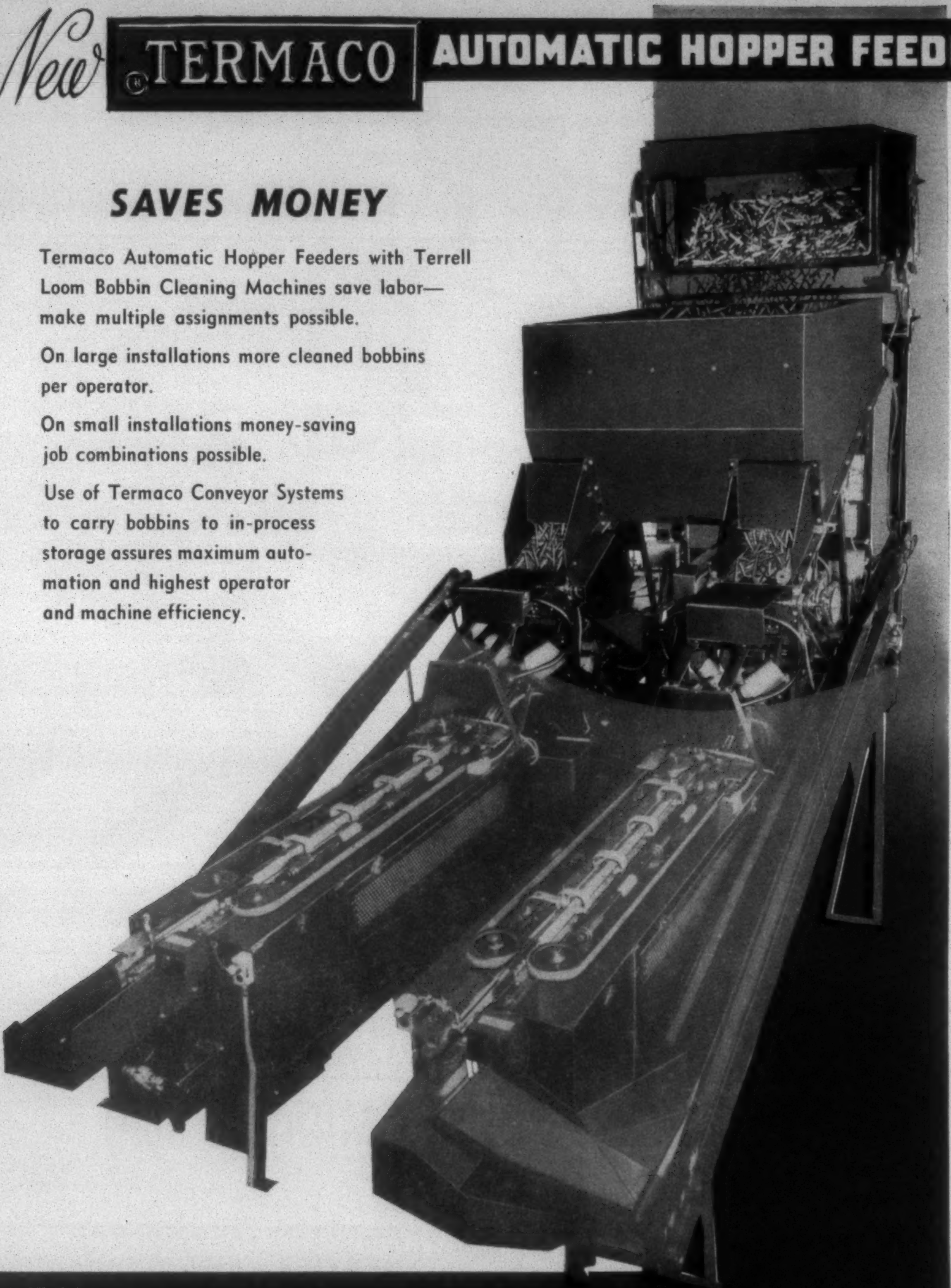

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textile bulletin

VOL. 86 JUNE 1960 NO. 6

Putting Value Analysis On A Formalized Basis

By CLAYTON EASTWOOD

Recent discussions about Value Analysis have established the merit of the formalized method of part, material or service evaluation. Any doubt that remains about the mechanics involved can be cleared by: (1) explaining the object of Value Analysis; and (2) outlining the case history of a fictional evaluation. That's what the following is intended to do.

THE object of formalized Value Analysis in every day mill operation is to get the top value out of each dollar spent for supplies, repair parts or capital equipment. There's nothing new about trying to get the most for your money, but putting this effort on a formalized basis is relatively new to the textile industry.

Perhaps the best way to explain the various steps in doing a Value Analysis is to give an example. Suppose Mill A and Bill B were both weaving print cloth on Draper X-2 looms using Brand X pickers. The salesman from Top Brand Picker Co. calls at both mills and persuades each to give the new Top Brand picker a trial. Mill A buys enough Top Brand pickers for 50 looms and puts them in operation on a given block of looms as old pickers wear out. The new pickers are evaluated using: (1) the efficiency of the looms; (2) the loomfixers' opinions; and (3) the length of life of the pickers from both loomfixer's memory and supply room records.

Mill B also buys enough Top Brand pickers for 50 looms. However, unlike Mill A, the supervisors in Mill B meet and decide what they want the trial picker installation to tell them. When the object of the trial is established, the Mill B supervisors decide what information they will need to get the answer they want. They ask themselves, "What factors of weave room operation are affected by picker performance; and what factors in our weave room affect picker performance?"

Mill B supervisors decide to determine the validity of the Top Brand salesman's claims for the picker by investigating each factor thoroughly.

Tangible And Intangible

The factors selected for study may include both tangible and intangible ones. Most neophytes are inclined to pass off tangibles as intangibles because they do not know how to measure them. Since this is true, Mill B supervisors call in such specialists as industrial engineers, personnel men, tax men, etc., to help in the picker evaluation.

The test procedure chosen by Mill B supervisors involves these considerations:

(1) The object of the picker evaluation is to determine the value of Top Brand pickers in comparison with Brand X.

(2) Factors to be judged include: (a) cost per thousand loom hours; (b) savings effected by reduced mispicks and other second quality defects; (c) savings effected by lower maintenance costs after picker installation; (d) possible increases in loom speed due in full or in part to Top Brand pickers; (e) increases in weaving efficiency; (f) effects of heavy moisture conditions or changing moisture conditions on the Top Brand picker material; (g) effects of less picker work on the balance of the loomfixer's job; (h) effects on weaver efficiency and morale by the performance of Top Brand pickers.

(3) The tangible and intangible factors will be measured by running the Top Brand pickers on a block of 50 looms beside another block of 50 looms with Brand X pickers. All of the pickers will be installed at the same time or as nearly the same time as possible. Records will be kept on each loom in the two groups as well as averages for both groups. These records will include: (a) loom speed; (b) production—either total picks, or total yards within a given period—of first and second quality goods; (c) type of defects in second quality goods; and (d) picker life.

The Mill B picker evaluation is a big undertaking with many different aspects. Recognizing this, the mill appoints a co-ordinator for the entire evaluation. He may be the weave room overseer, the quality control engineer, or some other supervisor. But it *is* essential to have one person in charge and responsible for the validity of the test.

The co-ordinator appoints the personnel man, or somebody with this type experience, to measure the morale factors to be involved in the test. An industrial engineer or like-experienced man is appointed to measure and analyze stops per thousand loom hours during the test. The cloth room overseer is assigned the job of determining the difference in second quality goods from the two blocks of looms, if any difference exists. The weave room clerk is appointed by the co-ordinator to determine differences in loom efficiency in the two groups. The co-ordinator also assigns others with special skills to aid in the evaluation of tangibles or intangible factors.

On the completion of each of the respective mill evaluations, which mill do you think will know the most about the performance factors of Brand X and Top Brand pickers? If the differences in the two pickers are slight but definitely slanted in favor of one of them, is Mill A as likely as Mill B to recognize the difference and slant correctly? Mill B's evaluation certainly cost more in terms of time and money, but it yields factual results of significant use.

Conclusion

The mills and pickers we're talking about here are entirely fictional, of course. But the method described for carrying out an analysis of value follows the step-by-step procedure given by Wilbur Bryant, textile consultant, Charlotte, N. C., at the Spring meeting of the Textile Quality Control Association held in Atlanta, Ga.

Bryant's approach to methods of quality control, in summary, are:

(1) Determine Your Goal.—Spell out exactly what you want the evaluation to find out.

(2) Set-Up The Equation.—What factors of a problem should be weighed against others to prove the validity of the method or idea?

(3) Measure The Factors.—Measure both tangible and intangible. Call in people with diverse skills such as tax men, personnel men, industrial engineers, quality control men, etc., to help you.

(4) Appoint A Co-Ordinator.—A Value Analysis needs to have a co-ordinator capable of farming out the measurement of the various factors. Personnel people can best determine the effect of a material or service on labor turnover. Industrial engineers can carry out accurate evaluations of machine efficiency—either loom stops, spinning ends down or what have you—and determine the effects attributable to specific factors. Get a co-ordinator who isn't afraid to "call in the experts."

T.Q.C.A. Meeting Features Varied Program

TOPICS DISCUSSED INCLUDE VALUE ANALYSIS SPINNING WEIGHT VARIATION, DACRON/COTTON BLENDS AND LOWER HUMIDITY FOR THE WEAVE ROOM

A PANEL discussion on value analysis; spinning weight variation, blends of Dacron and cotton; and a new goal for lower weave room humidity were subjects of speakers from the textile industry and its suppliers at the Spring meeting of the Textile Quality Control Association, held March 24-25 in Atlanta, Ga.

Why Value Analysis?

Harry G. Batson of J. P. Stevens & Co. was chairman of the first technical session at the meeting. Featured at this session was the value analysis panel discussion. In his talk, "Why Value Analysis?" Gus Guggenheim of The Kendall Co. said, "In its most fundamental sense, value analysis is the systematic application of horse sense to the problem of cost reduction."

Referring to an article on value analysis which appeared in the October 1959 issue of this journal, Guggenheim said, "Generally speaking, a formal value analysis program: (1) established value by examining the function (or service) performed by any part used in the manufacturing operation; (2) includes the promotion of ideas which enhance job performance and/or improve the quality of the end-product; and (3) explores and studies every element of cost in every part, material or service.

Things to be considered by a formal value analysis program, according to Guggenheim, are: (1) alternate materials; (2) elimination or simplification; (3) using facilities of specialized suppliers; (4) possibilities for use of standard purchasing specifications; (5) engineering re-design; and (6) re-evaluation of operating practices.

Elements Simple

He said that while they may sound complicated, the elements of value analysis are simple and are even used by the housewife doing her marketing. She establishes value by *examining the function* of a bunch of greens at the vegetable counter. She knows greens are necessary to the diet of her family because of the vitamins and minerals they contain. The housewife thinks of ideas to *enhance job performance* or improve the quality of the end-product when considering the various methods she may use in cooking the greens. Finally, she studies the *elements of cost* by first deciding if she has enough money to include any greens in her purchase and, if so, whether she should get turnip greens, mustard greens or spinach. She must juggle cost factors against intrinsic use value. Does the family like turnip greens better than mustard greens? If they won't eat turnip greens, why buy them regardless of cost?

Guggenheim asked, "If value analysis is profitable on an informal or natural basis, is it not logical that on a formalized basis value analysis would yield considerably greater benefits?"

Cost Reduction

"Cost Reduction Through Value Analysis" was the title of a talk by Roy M. Barnes Jr. of The Du Pont Co. Barnes gave a detailed description of the company's Chambers Works' cost reduction program and used movies, slides and cloth board in his illustrations. He pointed out that cost reduction is not a new idea to any conscientious foreman. Indeed, he said cost reduction is an integral part of the foreman's job and determines his personal success as well as that of his company. The cost reduction program is formalized to encourage this cost-consciousness and to assist the foreman in reducing plant costs.

The purpose of such a program is to promote savings in materials and labor. In action, the program consists of a number of departmental committees seeking cost reducing ideas, outlining tests, and so forth, and a committee or program co-ordinator. The committees hold regular meetings and report to the co-ordinator monthly. The committees are responsible for cost saving suggestions from the supervisory group in its department or area of operation. In cases where operations overlap two departments, the co-ordinator designates one committee for final responsibility and follow-up.

Barnes said annual goals for such a cost reduction program should be set early in the establishment of the program. Every cost other than taxes, insurance, depreciation and other overhead items are included in determining the goals.

Two necessities to the success of a cost reduction program are: (1) complete support and a continued emphasis by top management; and (2) publicity.

Other members of the value analysis panel were Wilbur Bryant, consulting engineer, "Methods of Value Analysis"; and W. A. Thomason, Thomason Textile Service, "Putting a Value On Quality."

Long Term Variation

The chairman of the second technical session was Manning H. Garren of J. P. Stevens & Co. Elvin H. Bond, technical consultant, gave the first talk of the session, "Long Term Variation In Spinning."

"When we speak of long range yarn variation," Bond said, "we mean the kind of variation that is not readily detected with the evenness tester because a thick or thin spot would be enough to run a complete cycle on the tester. It may be long enough to fill one complete cop, bobbin, tube or case. And, not to be left out is the lot of yarn, one full doff, one day's run, or anything that causes the yarn size to change from time to time."

Because of the manner in which picker laps are run and weighed, Bond said, it would be easy to believe that all long range variation is introduced in the lap. "This is not necessarily true because a short length unevenness made by the card after being drafted could well be long enough to spin one complete bobbin of yarn. With single-process drawing, the opportunity to even by doubling is lost forever, and the card unevenness is passed directly into the yarn."

Among the things Bond listed as creating card sliver unevenness are: (1) badly formed laps that do not unroll correctly—mainly splitting laps; (2) slipping belts; (3) bad gearing; (4) worn calender roll shafting; (5) shafting clogged with fiber; and (6) damaged clothing. "And don't forget," he said, "to check all draft gears on your cards as well as production gears. Make certain your cards are making sliver the same weights. A sample weighing of a few yards is not sufficient to determine for sure the sliver weight, but speed checks should be made and gears counted to make sure all cards are operating in the same manner."

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Another Source

The drawing process is also a source of long range unevenness, Bond pointed out. "Which person among us has not at some time or other found a drawing head running in production with the wrong draft gear? Are you sure your frames are set to stop positively when one end is broken?"

There is no doubt, he said, that much of the draft gear changing that is done to control size on the slubber adds to the size variation. It is always wise to make sure the number of bobbins sized really represents the production. Long term variation may also be introduced in spinning by the use of wrong draft or twist gears. However, he emphasized that once bad roving is put in the spinning creel, nothing can be done to correct it.

Summing up, Bond said reducing "long range variation goes back to opening and picking; the foundation is laid there, but no one process is responsible altogether for the end results. Each adds to the quality or subtracts, depending upon the wisdom of the department management and the alertness of the fixers and operators in that department."

Dacron-Cotton Blends

"Blends of Dacron Polyester Fiber and Cotton" was the title of a talk given by James A. Newnam of The Du Pont Co. Pointing out the Dacron-cotton blend fabric production for 1960 is estimated at 200 million yards, Newnam said the rapid expansion of this business has been due to a concentrated, well co-ordinated effort by fiber producer, manufacturer, finisher, fabricator and retailer.

"The premium paid for blends of Dacron polyester fiber and cotton is justified by the quality as measured in terms of fabric performance. This means that fabric must be well constructed, adequately finished, properly fabricated and honestly represented to the consumer in order to keep business growing." The blend level of 65% Dacron and 35% cotton is basic to quality and performance, he said.

"Experience over the past eight years (the fiber was put in the commercial development stage in 1952) has proved conclusively that this polyester fiber content in blends with cotton must be a minimum of 65% in order to give the consumer maximum value," he said. "Using a lower percentage of Dacron could lead to disillusionment and loss of confidence by the consumer. The motto should be 'to offer nothing less than the best that can be made'."

Longer Weaving Humidity

Herbert C. Olsen, National Starch & Chemical Corp., delivered the final paper of the session, "Will Sixties Goal Be Humidities Of Sixty?" Olsen pointed out that the effect of moisture on the weaving process is well known. However, he said, "like most good things, it can be overdone. Every weaver knows that it is one of the most important variables which must be controlled."

The disadvantages of excessive humidity are many, Olsen said: (1) worker discomfort; (2) high maintenance of roof and floor; (3) rusting of equipment; (4) mildewing; and (5) difficulty of exact control.

"When attempts are made to reduce the humidity," Olsen pointed out, "considerable difficulty is encountered and the mills revert to their former status, having proved to their own satisfaction that lower humidity is unworkable." He said often it has been found that one reason for failure is due to the fact that the mill's size formula was developed to work best under the high humidity conditions. When the humidity is lowered, the warps become brittle, ends begin to snap, and efficiency plummets. "Even if a lower humidity formula is introduced for trial, the over-all humidity is not dropped because of its effect on the regular warps already in the weave room," Olsen declared. "In short, any attempt to decrease humidity disrupts the weave room operations and lessens efficiency during the change-over period."

To counteract this situation, Olsen stated the reduction of humidity is not any more painful than at the time the humidity was originally increased. "This earlier experience," he said, "is generally forgotten because it took place gradually over the years by making increases in starch pick-up and adjustment in size compounds."

There is no question that humidity is required for plasticizing fiber and film and is therefore necessary for good weaving. Olsen said the question is—just how much humidity is best? It is possible that the humidity pendulum has swung too far and that a reasoned persistent effort on the part of mill management will bring it back to the optimum, he said.

In his discussion, Olsen illustrated some quantitative aspects of the amount of humidity problem with relation to starch properties. In this discussion an important fact reported by Olsen was "as humidity increases beyond about 50%, the tensile strength of starch films drops very rapidly. One of the most essential properties in a warp size is film strength."

Practical Applications

It is not uncommon for theoretical conclusions to be invalidated because of some plant variable not embodied in the laboratory testing conditions, Olsen said. Justifiably, a practical mill man will want the theory demonstrated under his own particular mill conditions.

"To fill this demand," Olsen reported, "a system was devised to canopy an individual loom in a polyethylene tent and control the temperature and humidity with a room air conditioner. By proper setting of the exhaustion rate and the cooling controls, moderately uniform temperature and humidity can be obtained since the unit makes use of the relatively constant conditions of the weave room which acts as an unlimited reservoir.

This method has the advantage of working with the actual fabric constructions and looms encountered in the particular mill. Many variables are eliminated because the test is run simultaneously with regular production in the same weave room and without upsetting normal production.

"It must be expected that intermittent loom adjustments will have to be made until the wood and leather parts react fully to their new environment. The multitude of these adjustments could not be accommodated if the entire weave room were to be changed so abruptly, and therefore large-scale tests could not be carried out.

"Limited plant trials with cotton yarns normally woven at 80% humidity have already shown that equivalent weaving efficiency can be obtained at humidities as low as 55%. Further tests are required to definitely establish the possibility, but it seems certain that some decrease in humidity can be accomplished."

Georgia Textile Operating Executives Discuss

- COTTON BLENDING
- COTTON QUALITY
- CARDING
- DRAWING OF SYNTHETICS

Question No. 1—What special precautions have you found necessary when blending local rain grown cottons with Western irrigated cotton?

Mill A: We have found it necessary to feed local rain-grown cotton and Western irrigated cotton in separate hoppers or feeders and let the blending be accomplished on the feed table and in the S.R.R.L.

Mill B: We have no experience with irrigated cotton. We have had difficulty with too much fly when we use blends of the soft Mississippi and Texas cotton with cotton from other localities.

Mill C: We do not blend irrigated cotton with rain-grown cotton.

Mill D: We have found it necessary to adjust hopper feeds to correspond to percentage of blending desired. We have not encountered any particular difficulty in blending compressed and flat cottons.

Question No. 2—Compare new crop (1959) cotton with old crop (1958) in regard to: (a) nep count; (b) break factor; (c) ends-down in spinning; (d) loom stops; and (e) over-dried or over-ginned cotton.

Item	Mill A	Mill B	Mill C*	Mill D	Mill E	Mill F
Nep Count	same	+10%	—	more	more**	same
Break Factor	same	+1%	about same	lower	—6 to 10%	lower
Ends-Down	same	—3%	+10% EDPTSH	more	same	more
Loom Stops	—	+14%	+7%	more	+10%	—
Over-dried or over-ginned	trashier	—	—	damaged	mean length shorter	over-dried

*Mill C notes more shedding in carding, spinning and weaving with new crop cotton.

**Judged from fabric appearance.

Question No. 3—What has been your experience with metallic card clothing?

Mill A: With metallic clothing our neps are about ten per 100 square inches lower. Our production rate and yarn breaking strength is the same. Yarn evenness is improved and total waste is approximately 1.75% lower. Ends-down in spinning is about the same. We use strict low middling cotton and find we have more fly in the air with metallic clothing. Our carding rate is 12.5 and 9.2 pounds per hour.

Mill B: By installing metallic card clothing we were able to: (a) reduce our nep count 40%; (b) improve % C.V. 14%; and (c) eliminate doffer and cylinder strips, reduce flat strips 0.64%, reduce reworkable waste 0.51%. We changed our cotton from strict low middling to low middling. Our cards produce 17 pounds per hour at 100% efficiency. The break factor of our yarn has remained about the same.

Mill C: Using metallic wire we have found nep count reduced 20% in comparison to conventional wire. Production can be increased. We run bright strict low middling with staple length of $1\frac{1}{32}$-inch at 11.3 pounds per hour at 100% efficiency.

Mill D: With metallic wire we reduced our nep count by two-thirds. We retain more spinnable fibers in the stock by 1 to 1¼%. Yarn is slightly more even with metallic card clothing. Card waste is reduced with metallic clothing—5.37% compared to 6.7% for conventional wire. We card strict low middling at 8.4 pounds per hour.

Mill E: With metallic card clothing we: (a) reduced neps 50%; (b) increased production slightly; (c) found no change in break factor or yarn evenness; (d) found ends-down in spinning slightly increased; and (e) found a noticeable increase in fly in the card room but no increase in fly in the spinning room. We card $\frac{15}{16}$-inch strict low middling at 11.75 pounds per hour.

Mill F: We have been using metallic card clothing for about five to ten years. Our experience has been: (a) less neps; (b) increased production and yarn break factor; (c) improved yarn evenness; (d) less card waste; (e) decreased spinning ends-down; and (f) increased carding and spinning fly waste. We run bright strict low middling at 15.51 pounds per hour.

Question No. 4—What advantages have been obtained from using split top flats on cards?

Mill A: We had a 19% reduction in neps result from the use of split flats. We have not increased card production but did decrease the amount of flat strips. We grind these flats once every three months.

Mill B: We reduced our nep count using split flats. We think that production could have been increased 5 to 7% and still maintain the same quality. Our flat strips decreased, look darker, and contain more short fibers. We grind our split flats every six months.

Mill C: Split flats reduced our nep count one-third. We have not increased production. The amount of our flat strips was reduced 26%. We now have 24 cards on split flats, some of them have been running for two years, and we have not ground any of them yet. We do not think they need grinding yet.

Mill D: We grind our split flats once per year. Our neps increased 7% with split flats. We have not increased production but do make 13% less flat strips.

Mill E: We are experimenting with two cards with split flats. We have found no advantages to this type flat. Our flat strips have increased. We grind split flats every 40 days.

Question No. 5—When running synthetics on drawing: (a) Can suction cleaning be used successfully? (b) Is cut sliver a problem when running metallic rolls? (c) Do you have trouble with slivers crawling out of spoons? (d) Do you use any type condenser between calender rolls and tube gear?

Mill A: Suction cleaning can be used successfully when running synthetics on drawing. We don't have problems with cut drawing using metallic rolls or slivers crawling out of spoons. We do not use a condenser between the calender rolls and tube gear.

Mill B: We don't have any trouble with cut drawing or slivers crawling out of spoons. We use the Ideal condenser between calender rolls and tube gear.

Mill C: We have no problem with cut sliver using metallic rolls. We have had trouble with sliver crawling out of spoons when we tried to run synthetic sliver weighing 70 grains. We corrected the situation by lowering the sliver weight to 50 grains. We have a 12-inch tube gear with 1½-inch tube. We run a French collar made by Ideal Industries between the calender roll and tube gear.

Mill D: We have had trouble with cut sliver using metallic drawing rolls. Cut sliver is caused by cored sliver, excessive humidity, excessive tint and rolls out of alignment. We have trouble with slivers crawling out of spoons and have not corrected it as yet.

Mill E: We have had no difficulty with cut drawing when using metallic top rolls. Correct speeds and settings of rolls are necessary in controlling this problem. Our drawing slivers are held in spoons by small metallic shell rolls positioned just above and back of spoons. These rolls revolve as the sliver passes underneath them. We use nylon condensers between calender rolls and tube gears on certain types of synthetics. On other types we use none.

Mill F: We run synthetics in blends with cotton. We have no experience running 100% synthetics. Suction cleaning can be used successfully with our blends. Cut sliver is not a problem if the rolls are set correctly for the staple. We do not have trouble with sliver crawling out of the spoons and run both 50 and 65-grain sliver on 12, 14 and 16-inch coilers. We do not use a condenser between the calender roll and the trumpet.

Question No. 6—What type clearers do you have on fly frame rolls? Do you have excessive fly build-up anywhere in the drawing system?

Mill A: We use sponge rubber revolving clearers on the front top rollers and flat clearers covered with short nap clearer cloth on the back top rolls. We use flat clearers on bottom front rolls. We have Saco-Lowell FS-2 frames and have no excessive build-up of fly anywhere in the drafting elements.

Mill B: We have three-roll standard frames and use flat clearers on top and bottom rolls. We don't have excessive waste build-up in this drafting element.

Mill C: We use revolving clearers on top rolls and stationary clearers on bottom rolls of our converted J-3 frames. We have the three-roll drafting system and have noticed excessive waste build-up around Pneumastop pipes. Our remedy for this build-up is more cleaning.

Mill D: We use flat clearers on top and bottom rolls on our Whitin long draft roving frames. We do not have excessive waste build-up anywhere on this drafting element. We clean rollers and aprons every three months.

Mill E: We use flat clearers on back rolls and revolving clearers on front rolls on our FS-3W roving frames. We don't have excessive waste build-up on this unit.

Mill F: We have FS-2 frames and use revolving clearers on front top rolls. We use flat clearers on middle and back rolls. On bottom rolls we use a flat clearer on front and revolving clearers on back rolls. We also use a revolving clearer on aprons. There is some build-up of waste between the apron and front rolls around the condensers. We haven't stopped this trouble.

Mill G: We have flat clearers on top rolls. We have weight suspended conventional clearers on the bottom rolls. We have long draft and superdraft drafting systems. We have considerable fly both in the drafting system and on the front of the frame and have found nothing to date to eliminate this problem.

Item	Mill A	Mill B	Mill C	Mill D	Mill E	Mill F	Mill G	Mill H	Mill I	Mill J	Mill K	Mill L	Mill M
Size Card Coiler	18x42	18x42	15x42	16x36	16x36	18x42	18x42	18x42	15x42	18x42	16x42	18x36	18x42
Pounds In Can	38	40	23	25	24	38	47	42	24.75	42.5	30	34	40
Method of Handling	hand	truck	hand	hand	truck	conveyor	hand	truck	hand	truck	truck	hand	truck
Stripping Trouble	no	no	no	no	no	yes	no	no	no	no	no	no	no
Size Drawing Coiler	18x42	16x42	16x42	16x42	16x42	16x42	16x42	16x42	12x36	16x42	15x42	14x36	16x42
Pounds In Can	42	35	39	34	35	38	35	37.5	18.86	37-34	30	24	35

Question No. 7—What has been your experience with large card and drawing coilers?

Question No. 8—How do you handle your creeling using 12x6-inch or larger roving packages?

Item	Mill A	Mill B	Mill C	Mill D	Mill E	Mill F	Mill G	Mill H
Bobbin Size	12x6½	12x6½	13½x7	12x6½	13½x7	12x6½	12x7	14x6.5
H.R. and T.M.	1.00-1.33	0.95-1.18	.40, .98-1.25	.85, .40-1.20	.50	.60, .70, .90-1.20	.60-1.25	.80-1.29
Pounds Per Bobbin	3.25	3.8	4.5	3.25	4.75	3.62	——	4.94
Who Creels?	spinner	spinner	spinner	spinner	spinner	spinner	spinner	spinner
How?	random	——	random	random	random	random	random	random
Use Boxes?	no	no	yes	no	yes	yes	yes	yes
Are Umbrella Creels Advantageous?	——	no	yes	——	——	yes (cleaning)	yes	yes

Use Of The Point System In Fabric Evaluation

By PAUL E. BIANCO*

THE assembly of a Standard Procedure of Quality Evaluation for Woven Textiles with a Manual of Defects and Imperfections has been completed under the joint sponsorhip of the Textile Division of the American Society for Quality Control and the National Association of Shirt, Pajama and Sportswear Manufacturers. By definition, "this work is offered as a rule and guide between vendor and vendee to define defects in woven textiles and to establish penalty point values for them. Ultimately, it may serve as a formula in establishing quality levels in the purchase of piece goods."

Basically, the make-up of the procedure may be described as a glossary of the most common defects, together with a formula for determining average quality level of a shipment. Penalty points are assigned to fabric defects by size and frequency:

up to 3″ = 1 point
3″ to 6″ = 2 points
6″ to 9″ = 3 points
over 9″ = 4 points
maximum penalty for one yard = 4 points
exceptional defects (when present) = 4 points

Fabric pieces are given point values by using linear or square yard formula as the case may be:

$$\frac{\text{defect points assigned} \times 100}{\text{length of piece}} = \text{point value of piece per 100 linear yards}$$

$$\frac{\text{defect points assigned} \times 36 \times 100}{\text{length of piece} \times \text{width}} = \text{point value of piece per 100 square yards}$$

The point values of the pieces in the shipment of goods are totalled and divided by the number of pieces in the shipment. The quality level of the shipment thus becomes a known factor.

It would be foolhardy to believe that a new standard of procedure would be accepted outright without criticism, and I am not intimating that this procedure has been accepted. Any new standard is subjected to trial basis, and it takes a long time for it to become absorbed into the ways of the industry. The textile industry is complex and such a procedure would eventually become modified or corrected and fall into a slot for the given end-use area. Realize that tensile strength tests, colorfastness tests, among others, when set up, had to go through growing pains before their acceptance. It is no problem today to go to a mill or plant to ask for colored yarns that have fastness to specifications; or to go to a mill or plant with specifications for strength in accordance with specific testing procedures. Whether we realize it or not, we are gradually moving in the direction of standardization, which is what this procedure is attempting.

Criticisms To Standard

A procedure such as this would produce mixed reactions. Several of the criticisms have been in this light:

"We do not want to be in a position of producing different quality levels for selling."

"We have our own quality control check and produce the best cloth we know how. The converter and buyer know our level. We've been in business for years."

"It's too complicated."

I believe a second look at the procedure is in order, however. It is realized that it is not perfect and it is not the panacea but it has good merit and it can be made to work out satisfactorily. Moreover, it cannot be looked at from one side only. From the garment manufacturer's point of view, this scheme of reading quality does not preclude that a mill is expected to weave perfect fabric. No garment manufacturer expects to receive it. We know it, and you know it better than we, that cloth manufacturing is not an exact science. We know you have your problems and sometimes we worry about you, and if we are not worrying about you, we are worrying about what you are doing to us.

This procedure recognizes you cannot make a perfect cloth but it will measure how near perfect a given lot may be in such a way that it will be understood by all parties concerned. I feel sure that the folks who made up the Worth Street rules on this phase of quality checking, about 25 years ago, may have reached the point of submitting a scheme such as we have in this procedure, but having recognized the scope of the scheme, they encompased the problem with the philosophy which leaves it up to the buyer and seller to get along or fight it out:

> **"Unfortunately, the grading of cloth does not lend itself to specific definition. Practice varies with different mills and for different uses. Therefore, in this respect, the buyer should acquaint himself with the reputation of the subject mill; and if the uses to which the cloth is to be put requires an unusual degree of perfection, seller is entitled to be so informed."**

We have taken a step forward for better or for worse. We have evaluated defects and have supplied a formula. We have omitted those obvious terms of firsts, seconds, majors and minors, or other inadequate terminology. We have used a penalty point system, which is not new and is in extensive use in other methods.

The procedure has attempted to reduce to a common denominator or common language a method of checking out quality level. It has listed terms now in use and has correlated those too close in meaning to a single term, which

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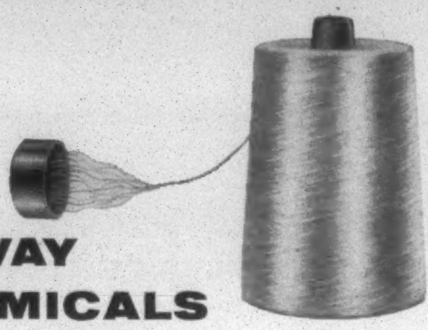
*Cluett, Peabody & Co. Paper delivered before the annual conference of the Textile Division, American Society for Quality Control, February 18-19, Clemson, S. C.



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may be substituted so that one universally accepted language develops. It has given points to defects so that one mill's minor is not another mill's major.

The committees involved would be the first to concede that they do not expect complete agreement; nor do they find fault with each mill's approach in establishing its quality, but they have put their best foot forward as a start toward the development of a yardstick of quality with numerical value, which can be understood between buyer and seller.

Common Language

I believe that mills, through committees, ought to ge together to make sure there is sufficient agreement to a common language on defects, such as this procedure covers. We need further evaluation of this procedure in this respect together with criticisms and suggestions. When the mills have reached the point of calling a slub a slub, a hole a hole, and grading it in common in point value, then other phases will begin to fall in line.

I would think that these committees might be established also on translating cloth's quality level according to this procedure with formula on certain fabric constructions common to all. Unless some synchronizing is done by the mills, quality levels will be reduced to meaningless terms and superficial quality levels. The situation would be similar to a piece of property for sale, with several real estate agents giving their estimates of property value and you know how close or accurate they'll be.

Assuming that all's well from your end, I believe the garment manufacturer must also step in to do his part so that he may learn to translate quality level ratings for his end use. He must correlate the quality level reading from the mill with results in his manufacturing operations in a given lot of goods, which his seconds in garments produced will do, as will the extra costs for cleaning, re-weaving, percentage of rejects, etc. When the garment manufacturer has reached this point, correlation with quality levels in accordance with this procedure will take on significance and meaning on his end-use product.

Long Way To Go

We have a long way to go for this procedure to be used as an instrument between buyer and seller. Presently, without meaning, it appears as a cold calculating device with buyer pinning the seller against the wall because he missed his quality level by a point. Your further research on the procedure techniques may well bring about formulation changes, quality level ranges instead of specific quality levels, correlation of penalty points, etc. I can see too that a specific sampling procedure must become an integral part of this procedure in order to arrive at true readings. I understand a committee is in the making to undertake this task.

I am sure we all realize the procedure cannot be applied and accepted overnight with common understanding. By staying with it, we will get to the point of truly understanding each other in the same language and transacting business with a great deal less misunderstanding than currently occurs. A mill sells by style and reputation today. Now we want to add a quality level expression to that reputation (reputation is not that permanent) and we want the buyer in a position of knowing what he is getting—a standardized way of knowing. That's the gist of it all.

Conducting A Mill Training Program

BETTER WORKER EFFICIENCY AND REDUCED TURNOVER CAN BE REALIZED THROUGH SYSTEMATIC TRAINING

By C. ROSS BEALL*

This is the first of a series of articles outlining the employee training program inaugurated by Opp and Micolas Cotton Mills, Opp, Ala.

TRAINING might be defined as the development of the ability of a learner in skills which he did not previously have through a series of progressive experiences. These experiences on the part of the learner must be extended to the point where he can satisfactorily perform his duties efficiently and productively on his particular assignment. This is the key point in which all training programs fail or succeed. Without the proper and extended follow-up, the learner will never reach his peak performance and remains mediocre in his skill or else becomes discouraged and often quits for another job.

In textile plants jobs are scarce where workers are paid for what they know. People are paid for work performed, and if they do not perform their work at their highest capabilities, they are losing, and the company employing them is losing.

Our purpose or objective in training here at the Opp and Micolas Plants is preparatory training or initial training and then extension training. The initial training given to a new worker as a "green" hand or new hand is to indoctrinate him in the operation of the entire mill and on the job to which he is to be assigned. He will receive thorough training in safety at work. He will be acquainted with the type of materials that the company is making. He will spend two or three days in close contact with the training supervisor. During these hours he will be closely observed as to his dexterity and potentialities as a worker. If at this time it is noted that he has not the aptitude nor a real desire to learn the job to which he is to be assigned, he will be screened or rerouted to another type of job for which he would best be suited. Of course, here the training supervisor will be in close touch with the personnel and the department overseer with whom the new employee will be working.

When this phase of screening and training is finished, the new worker is taken to the department where he is to work and placed in the hands of the instructor there who will begin his training in the technical duties of his job. This instructor has to be thoroughly competent and able to communicate what he knows to the employee.

Extension Training

Extension training is that part of training that is given to a person who is already partly competent in his field of work. This type of training is simply to add to his knowledge of his job. In training of this person, consideration should be given to his knowledge and skill, his needs, and the length of time you think the extension training should go on. All of the above should be intelligently handled and it should be recognized that the instructor who will handle the extension training should be highly skilled himself just as the instructor who trains the new man.

The same person may train both new men and extension trainees. If so, he must be readily adaptable to stay on the level of the employee with whom he is working. In many plants there are hundreds of workers whose levels of skills could be lifted almost at once if they had the opportunity of getting this extension training. They have just never had the opportunity of having a little instruction. They go on day after day not getting their peak production and efficiency. This results in a loss in money by the company and a loss in wages by the worker.

Training Produces Profit

A systematic training program is profitable to any organization, whether it be done in the departments by the "pick up" method or following some definite organized training program. It has been my feeling that the greatest need in textiles today is the development of the highest possible skills in the individual worker. This cannot be done without a systematic training program. Too many foremen take for granted that the worker ought to be able to run *most* of the jobs in the department with very little or no training. Today when competition is the keenest it has been in 20 years and labor costs at the highest in the history of the world, it seems to me entirely too little thought is put upon training systematically and constantly the worker who can make or break the fabrics or materials being produced. Even top management in many mills seems to give little

NOW THIS IS A SHUTTLE

Advanced classes may lose interest when instructors go over things "trainees" already know.

---

*Training supervisor, Opp-Micolas Cotton Mills, Opp, Ala.

thought to this important matter. Perhaps we should ask ourselves: "What profit increase and what lessened labor turnover could be realized by lifting the skills of just 10% of 500 workers in a textile plant?" With a proper systematic training program, these skills can definitely be lifted by a high percentage.

Of course, the cost of the training program is a factor that must be considered, but a carefully designed and planned program will more than pay its way. If the "lost motion" of the average new worker and the partially trained worker is reduced to a minimum in the mills today, the program should be self-supporting and result in increased profits and employee earnings.

A Constant Process

Whether or not a plant or organization has a training program, some form of training is taking place every day even though it may be ignored. While it is true that there are some jobs a worker can learn relatively well by just being placed with an experienced work, there are many more jobs that require higher degrees of skill requiring considerable time to learn. These include spinner, section man, weaver, loomfixer and even foreman. These jobs require too much time for a person running a regular job to spend the necessary time with learner or extension trainees to teach them to perform their jobs within the shortest possible time and in an efficient manner.

Our foremen necessarily have to instruct in their daily routine. However, they cannot train each worker in the details of his job without neglecting vital things of their own.

Initial Training Critical

At the Opp and Micolas Plants we recognize that the type of initial training a new hand receives usually determines whether he will be a good efficient worker or a mediocre or poor worker. In view of this, we have found that the best solution is to set up an organized training program. A separate department working directly out of the general manager's office and through the superintendents of our two plants and supervised by a full time training director or supervisor was the first step made toward this program.

It is the responsibility of this training supervisor to set up records, timetables on workers being trained, improve job methods, upgrade quality standards as required and make full reports to the general manager and superintendents on the progress of all workers in training. L. D. Sayers, general manager of both plants, is very interested in the training department and its work in the plants and teaches courses in training.

Some form of learning is taking place every day even though it may be ignored.

Close co-ordination with our department overseers, foremen and department instructors is carefully maintained. The work of our training is not limited to one department but will eventually cover every department in each plant.

Recently to enhance training at our plants, a modern training building was erected at the Opp Mill which will serve as the central training school for both Opp and Micolas. It is equipped with two X-2 looms, one for learners and the other for extension loomfixers. Plans are being made to install other machines later. The courses run for 13 weeks two hours per week. The reason why they are limited to two hours per week is that many of them attend other classes and we do not wish to overdo things, causing absenteeism from these classes—especially since all classes are held in off shift hours. Two classes of two hours each for learners and two advanced classes are held at present.

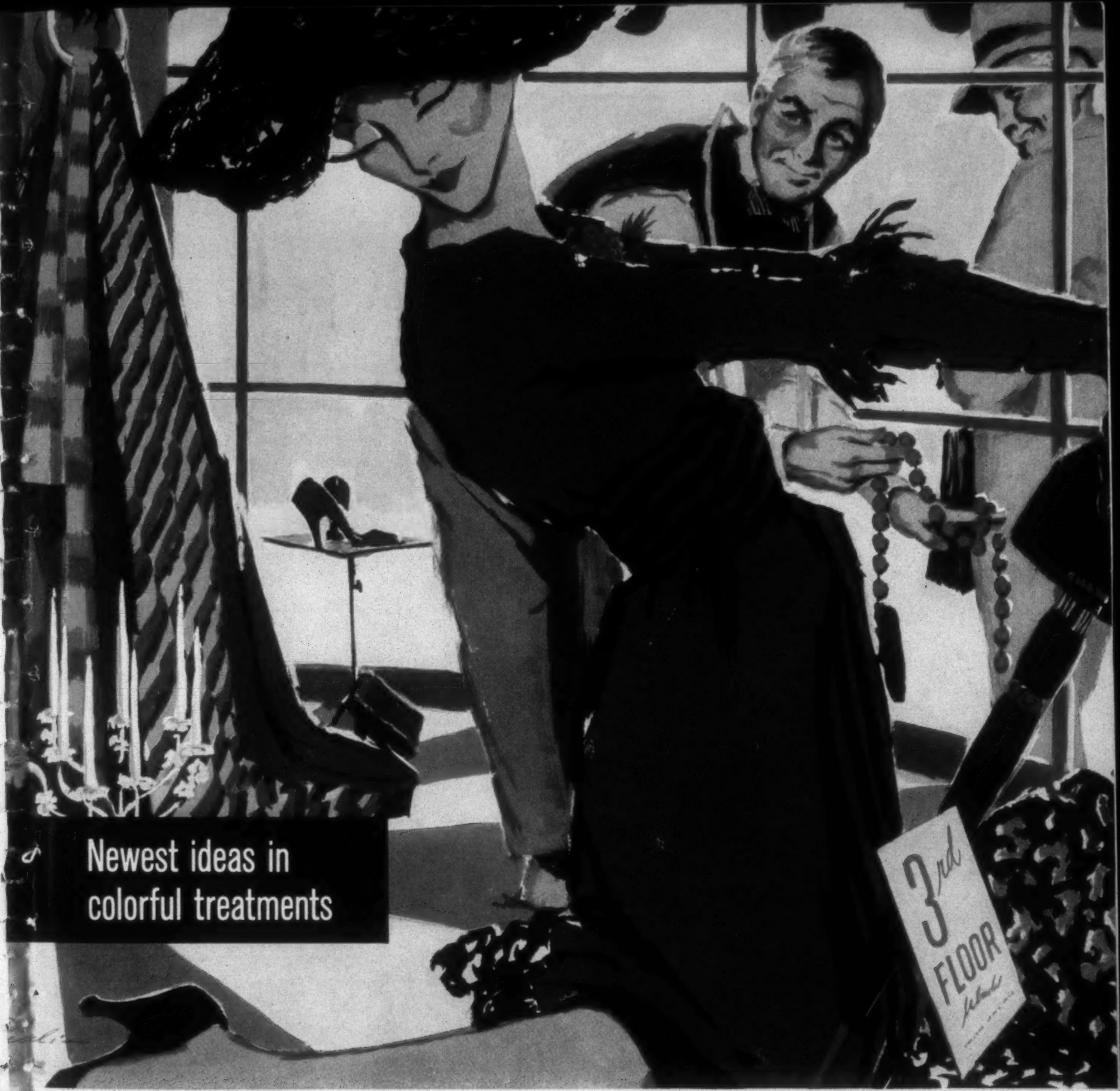
Selection Of Instructors

The instructors are well qualified men who not only are good technicians familiar with all Draper settings and gauges but are able to pass on the information to others in training. They are men from each of the plants, carefully selected and have good attitudes on their jobs. Before these instructors begin teaching others, they themselves are checked rigidly on settings, etc., to make sure they are teaching the same settings and giving the proper instructions. We feel there is no substitute for good instruction except better instruction. The training supervisor's main responsibility is to see that trainees get the best instruction possible.

Our method of teaching loomfixing in our plants is to the best of our knowledge thorough in its scope. We take the three main motions and teach them these first: (1) shedding, (2) picking, and (3) beating up. Following this we teach all the auxiliary motions, which are: (1) filling motion, (2) tape motion, (3) brake, (4) friction, (5) cloth traverse, (6) take-up, and (7) let-off. Immediately we follow with shuttle work and trouble shooting.

Maintaining Interest

We feel many advanced classes of fixers lose interest when the training classes go over things they feel they already know. In instructing advanced classes we plan our instructions so these men will be kept busy on the motions in a continuous trouble shooting fashion. They are given the finer points of loomfixing and any particular problems that are giving them trouble on their jobs are carefully discussed and answered if possible in the class session. Here is where the individuality of the fixer needs to be closely observed. That is, his attitude toward his work, his work habits, how he handles his tools, and the attention and interest he shows to instructions. Many times there are short cuts that can be shown him that will keep him interested in class training and will make him more valuable on the job. For example, whether he can be adept at using wrenches with both hands, whether he can place himself to get at inaccess-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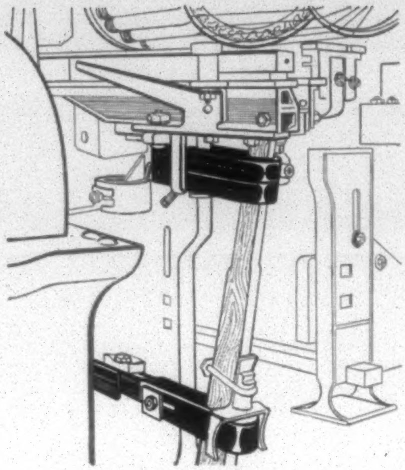

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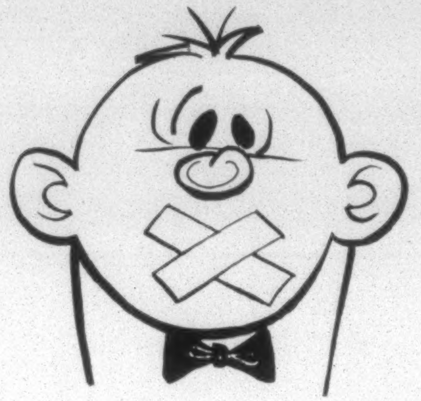


To be effective, an instructor must not only be competent but be able to communicate what he knows.

ible places about the loom quickly is important in his training. Many times the failure of a fixer to be able to do these simple items means the difference in his running a good section or a mediocre one. All of this is done by the instructor while he moves steadily forward with teaching the curriculum of the main and auxiliary motions yet keeping the instruction on the level of the advanced loomfixer. Periodically all actual work can be stopped and an hour of classroom discussion can be held with the instructor carefully leading the fixer discussion.

With learner fixers there is no problem involved in maintaining the proper level of interest if the instructor keeps each man busy for the entire class training period. At the outset we try to stress to both advanced and learner fixers the great importance of filing and fitting parts correctly to hold to a minimum spoilage or breakage of parts. It is surprising how many experienced loomfixers do not know how to use a file properly or even how to use a hack saw for the best results. Putting over-tension on certain bolts when tightening nuts or not tightening them enough results in poorly run sections. Many times expensive hand rails or reed caps are ruined because they are "overfiled" or the reed could not be squared because of a rocking chair filing. Fixers that have fixed looms for many years will parallel a picker and leave the heel bolt or parallel screw loose, thereby nullifying what otherwise would be good work. What kind of a file should be used and where, and when are things of utmost importance to good loomfixing but often overlooked in their training.

Training Goal

Our ultimate aim at the Opp and Micolas Plants is to get each fixer and trainee to fix looms as nearly alike as possible. We expect to accomplish this in the following ways: By the use of the same gauges and their application, by the observation or inspection each fixer makes of his job which includes his flags, cloth, warp out inspection, his method of actual repairs, and above all his work toward preventive maintenance. Each fixer on his respective shift must be brought to the level of the other in respect to these things before the ultimate in fixer training is developed. It is one thing to set a loom by the gauge and another to make cloth that will meet customer requirements. So we are taking each fixer on each shift and will train him until he has reached the point where he is doing his job in exactly the way the other two shift fixers are doing theirs.

The Loomfixer And His Job **Part Nineteen**

AN IMPROPERLY SET SIDE FORK FILLING MOTION CAN CAUSE THE FILLING YARN TO BE CUT OR BRUISED

By WILMER WESTBROOK

THE side fork filling motion requires little attention if it is correctly set up and timed. When inspecting the motion, look for: (1) bent or loose fork tines; (2) lost motion in the fork or hook; (3) rough, worn or bent grate grids; and (4) worn filling cam follower or bushing.

A bent tine or grid will make contact and will prevent the motion from operating correctly. A fork with side play will also cause the tines to strike the grid. Such contact will not only prevent the efficient operation of the filling motion —it will also cause the filling yarn to be cut or bruised and will cause mispicks and thin places in the cloth.

Follow these steps to align and time the filling motion: With the lay at front center position, move the filling motion stand until the fork tines are centered between the grate grids and the top of the fork is flush with the back edge of the back box plate. The bottom of the tines should project 3/8″ beyond the back of the grate. Both these settings can be obtained with the fork as issued by the supplier. Don't bend the fork tines.

To set and time the left hand fork, pick the shuttle to the left hand box, loosen the nuts that hold the cam follower and the cam follower hub. Loosen the setscrew in the filling cam.

With the lay at the bottom center position, adjust the cam follower hub so that the filling motion hook will be level. Move the cam follower dog until the loop of the fork is 3/16″ from the hook.

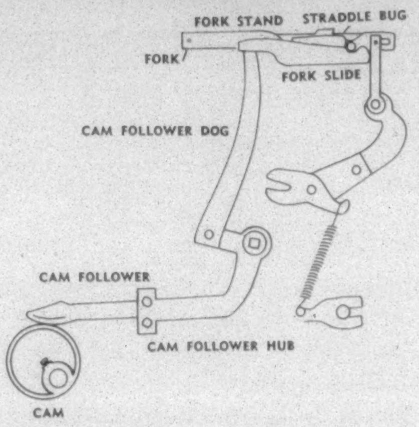
Move the lay to front center position and then turn the cam until there is only 1/16″ clearance between the loop of the fork and the hook. Tighten all connections securely.

On double-fork looms turn the loom one pick and with the shuttle seated in the right hand box, set and time this fork the same way the left hand fork was set and timed.

On some types of fabrics where quantity is more important than quality the filling motion can be set to cause a filling change instead of causing the loom to stop when the filling breaks or is exhausted. This change is effected by removing the straddle bug and turning it over. The lug on the straddle bug that normally rests on the filling motion finger is thus placed in position to activate the starting rod arm and the lug that normally moves the shipper arm is turned upward and is inactive.

Regardless of whether the motion is set to cause the loom to stop or to change filling, the clutch level link connected to the starting rod should be set for sufficient let-back of the cloth to prevent thin places.

The filling motion trip or lizard is designed to move into a deeper notch in the fork slide and stop the loom when the fork engages the shipper arm and moves it to the off position when the trip falls into the deep notch in the slide. This feature of the filling motion is designed to prevent the loom from operating when the filling changing mechanism fails to replenish the filling when non-feeler goods are woven.



The left hand filling motion and connections.

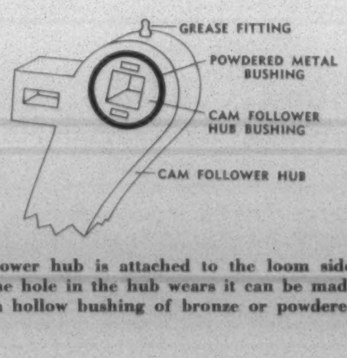
On double-fork looms the right hand fork sometimes engages the hook when the filling yarn is not broken or exhausted. This malfunction of the fork will cause the loom to stop or, on non-feeler weaves, will cause thick places in the cloth.

The fork is probably not at fault if it is correctly set and timed and the trouble may be caused by one of the following: shuttle not seating correctly in the box; picking motion timed late; filling grooves in shuttle not deep enough; rough or worn leather on the front box; back box, reed or shuttle race not correctly aligned.

For preventive maintenance, the filling motion should be checked at each warp-out. See that all parts operate freely and that they are correctly aligned. Check the timing of the cam. If the pin that holds the hook is worn, or the hole in the hook has become enlarged through wear, the correct timing cannot be obtained because of lost motion. Replace the hook or pin. Make sure the cam follower is seated correctly on the cam.

The cam follower is pivoted on a bushing bolted to the loom side and the hole in the follower, as well as the bushing, is subject to wear. Lost motion at this point will let the cam follower sway on the cam and the hook may strike the side of the slide.

A new bushing will usually correct this trouble. If the follower is badly worn the hole in it can be reamed out and a bronze or powdered metal bushing inserted in it.



The cam follower hub is attached to the loom side with a good bushing. If the hole in the hub wears it can be made good as new by inserting a hollow bushing of bronze or powdered metal.

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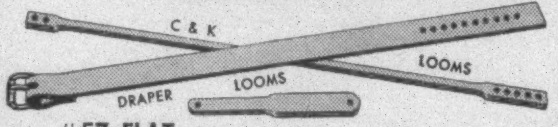

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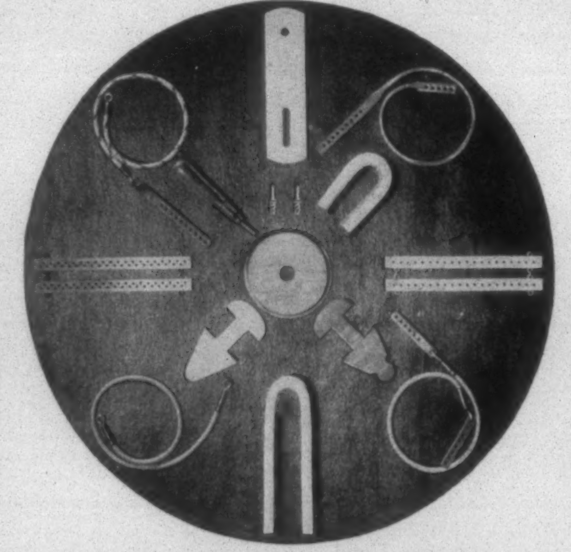

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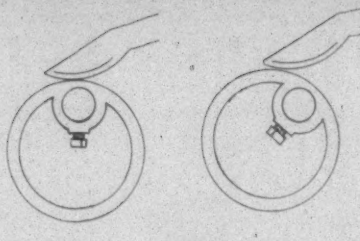
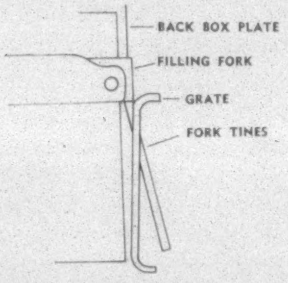


To align the filling motion, position the lay at bottom center and have the cam loose on the shaft as shown on left. To time the motion, move the lay to front center and position the cam as shown on right.

The bearing surfaces of the cam and the cam follower should be kept well lubricated with grease or heavy oil. If the cam follower is not fitted with a grease fitting at the bushing this part should be lubricated with a few drops of oil at each warp-out or once a week, whichever comes sooner.

Accumulations of lint and yarn on the fork and fork grate should be cleaned off as often as necessary to prevent them from impairing the efficiency of the filling motion.



Align the filling fork flush with the back of the back box plate and have the bottom tip of the fork tines extending ⅝-inch beyond the back of the grate.

Lowell Tech Plans Summer Textile Workshop

Several Summer professional development programs in textiles will be offered at Lowell Tech in June and July. A textile workshop of three two-week periods, each complete in itself, will consist of an intensive survey of all major textile operations and will include field trips to selected plants and laboratories. In this program, the fiber and yarn technology course of two weeks will extend from June 6 to 17; the two-week course in fabric technology from June 20 to July 1; and the two-week dyeing and finishing technology and textile testing course from July 4 to 15. Enrollment in the textile workshop, all periods, is limited to 15.

Structure and properties of textile fibers, to be given mornings only from June 6 to 17, will consider molecular and polymer structures, the mechanical behavior of textile raw materials, and the technological utilization of fibers in textiles. Enrollment is limited to 30.

Introduction to statistical methods, accommodating 30, will be presented afternoons only June 6 to 17 and will give a basic approach to the subject designed for non-mathematics majors with examples drawn from the field of textiles. This course is a basis for establishing systems of statistical quality control.

The testing of textiles, enrollment limited to 15, from June 20 to July 1 will cover the areas of mechanical, chemical and microscopic testing of fibers, yarns and fabrics with planned laboratory experiments in the mechanical testing phase.

The Designing Of Pile Fabrics

By E. B. BERRY

Chapter 7

Uncoated Upholstery

MOST cars up to 1920 were open touring cars, with little protection against the rain or snow. These cars had leather upholstery. This was cold in Winter, but durable in bad weather. After 1920, when the sedan became popular, a more comfortable upholstery could be used, because the elements would not damage the seat coverings as much. The fabric used most was the then popular mohair furniture upholstery.

The weaving properties are excellent, but it has several drawbacks. It is rather expensive and very picky in the Summertime. In order to overcome both these disadvantages a new fabric had to be developed. Animal fiber had to be employed for its ability to stand the wear and tear of people sliding in and out of cars. Wanted was a V tuft to give good coverage, with a minimum number of picks and delivery. The use of animal fiber and a V tuft would never be satisfactory without some adhesive material being used on the back to anchor the pile tufts.

Rubber latex coating was perfected during the late 1920's. That brought in an era of mass production of pile fabrics to supply the ever expanding automotive industry.

Several different types of fabrics are used for the automobile trade, both for the covering of front and back seats, as well as the overhead interior upholstery (headlining).

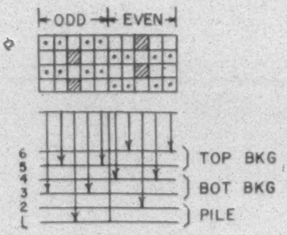


Fig. 33—A popular automobile fabric weave with a pile tuft every other pick.

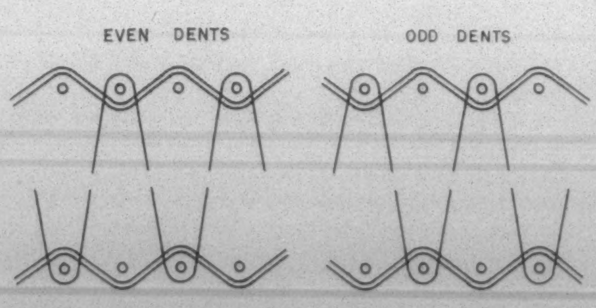


Fig. 33A—A cross section of the fabric shown in Fig. 33.

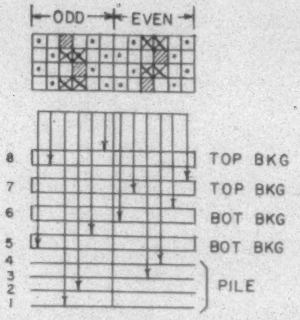


Fig. 34—A second automotive fabric with a pile tuft every other pick.

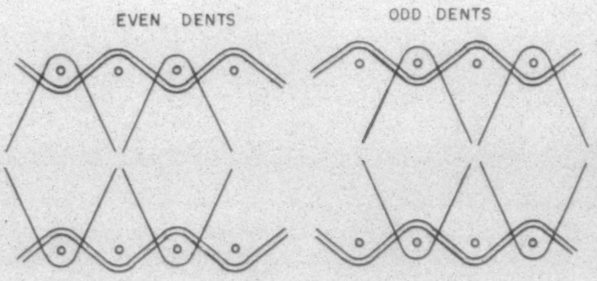


Fig. 34A—Cross section of the second automobile fabric.

One of the popular weaves is shown in Fig. 33, with the cross-section in Fig. 33A. Another weave is illustrated in Fig. 34 with the cross section in Fig. 34A. Both these fabrics have a pile tuft every other pick. Being animal fibers, the pile will spread out and give good coverage, but the finishing must be adequate to accomplish this.

From the cross-sections of these two weaves, (Fig. 33A and 34A) it is most difficult to distinguish between them in the cloth. Fig. 33A has one pile end per dent, weaving up, then down. Fig. 34A has two pile ends per dent, each one weaving up, middle, down.

Finishing

Here is the flow chart for these weaves:

(1) Weave
(2) Measure
(3) Greige Inspect
(4) Mend and Burl
(5) Greige Storage
(6) Shear Backs—Face down, to have the back free of strings and any unevenness, so that it will be smooth for the coating operation.
(7) Scour—Seven or eight bowl. First three bowls scouring solution, last four or five rinsing (plain water). To remove dirt, trash, and the spinning oils from the pile yarn.

(8) Coat—Rubber in the form of liquid latex is applied to the back of the cloth. This anchors the pile and prevents it from being pushed from the face.
(9) Dry—In a tenter dryer, to hold the cloth out to width. Also to vulcanize the rubber and to dry the cloth.
(10) Greige Shear
(11) Dye—To color the fabric according to the customer's requirements. It is done in a mangle, which is a continuous operation, due to the large volume business in this type of cloth. A steaming operation follows dyeing, to set the dye in the fibers.
(12) Finish—Aftertreat and extract, tiger, dry, tiger, beater, shear, brush
(13) Condition or Humidify
(14) Finish Inspect
(15) Color Match
(16) Roll and Wrap
(17) Ship.

Coated automobile plush is used for: (a) covering of seats and side walls in automobiles; (b) channel lining for car windows; (c) dabbers in liquid shoe polish boxes; and (d) furniture upholstery.

Chapter 8

Automotive Fabrics

WHEN a relatively inexpensive fabric is to be made with a V tuft and a slippery fiber such as filament viscose, with a low pile height, something must be done to improve the pile anchorage. This may be done by coating. At times, this may be objectionable due to the odor of the rubber, or its deterioration. In addition, when a rubber backed fabric is covered over a foam rubber cushion, the sliding action of rubber on rubber in normal use, may destroy the pile anchorage and cause some of the pile tufts to come out. This renders the fabric unserviceable and will cause customer complaints.

In order to supply adequate pile anchorage, without the use of a coating material, a "cover" system of yarns may be used. These yarns weave the same as the pile and press against the tuft, from the back of the fabric which helps the anchorage. Generally this system is drawn-in two ends per heddle eye, and sometimes two heddles or four ends are used to help anchor the tufts.

The weave and drawing-in draft are shown in Fig. 35 with a cross-section in Fig. 35A. Draft A in Fig. 35 uses regular heddles, which requires ten harness and many heddles. Using the special 3-eye heddles as seen in Fig. 35A, the top cover and bottom cover harness and heddles may be eliminated. This is made possible because the "cover" yarns always weave the same as the pile. An additional advantage is the way the shed is formed when using these 3-eye heddles. The bottom cover yarns will be below the pile, when it is in the bottom piece and will push up on the pile tuft, helping to hold it in. When the pile is in the top piece, the cover yarns will push down on the pile tufts, helping to hold it in. Draft B—Fig. 35 reduces the total number of harness to six.

The contraction in the tight backing is about 5% while the contraction of the cover yarn will be as high as 40%. This not only adds anchorage to the pile yarn, but adds total weight to the fabric. This type fabric is halfway between the V tuft velour and the W tuft mohair. It is less expensive than the mohair and better anchorage than the velour.

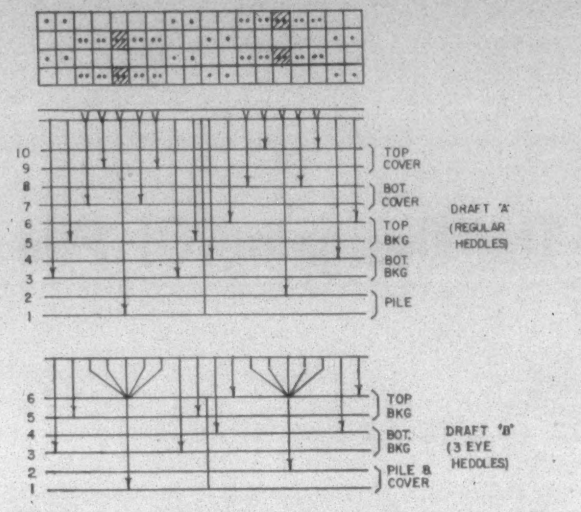


Fig. 35—The weave and drawing in draft of a V tuft fabric with a "cover" system of yarns, which improves the pile anchorage.

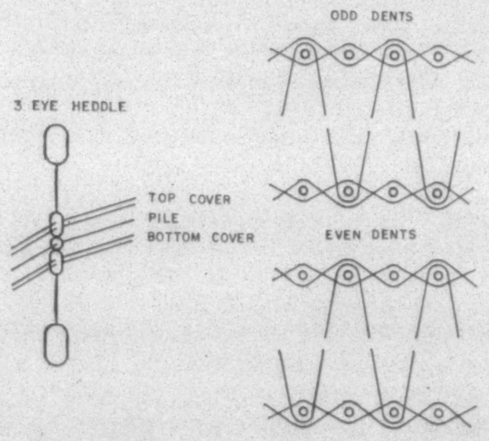


Fig. 35A—Cross section of the weave which uses a cover system of yarns weaving with the pile and pressing against the tuft from the back of the fabric.

Finishing

Listed is a typical filament viscose uncoated upholstery flow chart:

(1) Weave
(2) Measure
(3) Greige Inspect
(4) Mend and Burl
(5) Greige Storage
(6) Greige Shear
(7) Scour or Wet-Out
(8) Dye
(9) Finish—wet-out and extract, dry, beater, shear, brush
(10) Condition or Humidify
(11) Finish Inspect
(12) Color Match
(13) Wrap
(14) Ship

This fabric is used largely for furniture upholstery.

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S.T.A. To Hold 52nd Annual Convention

MEETING JUNE 23-25 TO FEATURE ADDRESSES BY J. M. CHEATHAM AND SENATOR BARRY GOLDWATER

SOME 700 members, wives and guests of the Southern Textile Association are expected to attend the group's 52nd annual meeting June 23-25 at The Grove Park Inn, Asheville, N. C. Highlighting the three-day event will be addresses by J. M. Cheatham, president-elect of the American Cotton Manufacturers Institute, and president of Dundee Mills, Griffin, Ga.; Senator Barry M. Goldwater (R., Ariz.); and Dr. R. C. S. Young, lecturer, General Motors Corp., Detroit, Mich.

Thursday Activities

The convention opens for registration at 9 a.m. Thursday, June 23. Included in Thursday activities are a men's golf tournament at 1 p.m.; a social hour at 6:30 p.m.; a buffet supper at 7 p.m.; and dancing at 9 p.m.

First Business Session

The convention's opening business session at 10 a.m. on Friday, June 24 will feature the addresses of Mr. Cheatham and Senator Goldwater. Friday afternoon will be open for a resumption of the men's 18-hole tournament; a nine-hole golf tournament for the ladies; and bingo games. A 6:30 social hour will be followed by a charcoal steak supper beginning at 7 p.m. A floor show at 9 p.m. followed by dancing will close the day's activities.

Election Of Officers

A feature of the closing business session on Saturday morning, June 25 will be the annual election of officers. If custom is followed, R. M. McCrary of Hart Cotton Mills, Tarboro, N. C., will be elevated from first vice-president to succeed Joe N. Jenkins, The Kendall Co., Pelzer, S. C., as president. Jenkins will move up to the chairmanship of the S.T.A. board of governors, succeeding Walter D. Vincent of Dan River Mills, Danville, Va. W. B. Etters, Reeves Brothers Inc., Spartanburg, S. C., will succeed McCrary as first vice-president, and a new second vice-president will be elected to succeed Etters.

The convention will also elect four members to the association's board of governors. Board members with terms expiring with the convention include Troy H. Carter, Woodside Mills, Greenville, S. C.; J. T. Chalmers, Monarch Mills, Lockhart, S. C.; J. R. Gilbert, The Randolph Mills, Franklinville, N. C.; and Nelson W. Kessell, P. H. Hanes Knitting Co., Hanes, N. C.

Associate Members Election

In a separate Saturday election, the Associate Members Division of the association is expected to elevate its current slate of officers to their next highest posts. R. W. Dunn of Whitin Machine Works, Spartanburg, S. C., will retire as chairman of the council. E. Haines Gregg of A. B. Carter Inc., Gastonia, N. C., will advance from chairman of the division to succeed Dunn. Carl M. Chalmers of Texize Chemicals Inc., Greenville, S. C., is expected to succeed Gregg; and a new second vice-chairman will be elected to succeed Chalmers. Junius Smith of TEXTILE BULLETIN is expected to be re-elected as secretary of the Associate Members Division, a post he has held since the division was founded in 1932.

Walter Vincent

Joe N. Jenkins

R. M. McCrary

W. B. Etters

Troy Carter

J. T. Chalmers

J. R. Gilbert

Nelson Kessell

R. W. Dunn

E. H. Gregg

Carl M. Chalmers

Junius Smith

A Round-Up Of Spring 1960 S.T.A. Activities

DIVISIONAL MEETINGS FEATURE GROUP DISCUSSIONS

South Carolina Division

APRIL 1, EASLEY, S. C.

D. H. Roberts of Lydia Cotton Mills, Clinton, S. C., is chairman of the South Carolina Division.

THE South Carolina Division of the Southern Textile Association held its Spring 1960 meeting on Friday evening, April 1 at Easley High School, Easley, S. C. Hosts for the meeting were Alice Mfg. Co., Glenwood Mills and Woodside Mills of Easley. Following welcoming remarks by H. E. Russell, general manager of Glenwood Mills, the group was divided into four discussion groups.

Included in these discussions was a session on spinning led by Bennett Hudson, Woodside Mills, Greenville, S. C. The following is an abstracted transcript of some of the questions covered.

Spinning Discussion

Moderator: The first question is on single or double flange rings. What is your preference? I'll start with Mill A.

Mill A: We prefer the double flanged rings with one side unfinished. Be sure that the side that is used is marked so that it cannot be turned over inadvertently and used again. Maybe Mill B can continue on that.

Mill B: No, the only thing I would add is that if both sides were finished before being put on the frame, humidity will rust the flange not being used and you'll not be able to run them satisfactorily. My preference is the double flanged with one side unfinished.

Mill C: I haven't had any experience along that line. I've always had the double side.

Moderator: The next question: What experience have you had with Kluttz rings regarding life of travelers, speed and ends-down? None of the panel members have had any experience with Kluttz rings. Are there any members in the audience that have? (No response). Well, somebody must have bought them. (Laughter). They sent the question. How about it, Henry? I thought you had one over there.

Reply: It was just a trial frame on it.

Moderator: How was it?

Reply: It didn't work out too well.

Moderator: Would you mind telling us what speeds that you tried it on and the yarn count?

Reply: It was on 42s; around 11,000.

Moderator: Was there any particular problem that you encountered with it?

Reply: Well, we couldn't hardly ever figure it out. The ends just wouldn't run.

Moderator: Even with what you would consider normal breaking in period?

Reply: That's right.

If You're Running 8s And 14s Yarn, What's Your Average Traveler Life?

Moderator: We'll go on with the next question: Traveler life and type traveler used as applied to 8s and 14s yarn. Mill A, I'll let you take that. Your average count, I think, is under 10.

Mill A: We never try to get the extreme life out of our travelers, but we're running from 76 to 92 hours. We use mostly a Dary half-round traveler, and in numbers from 10s to 27s. Tens on 14s count; up as high as 27s on 8s count. That is on a 2½-inch ring.

Question from audience: What's your spindle speed?

Mill A: Spindle speed is around 7,900.

Moderator: Can I hear from you, Mill C, on it? From 8s to 14s yarn, what has been your experience?

Mill C: My experience is pretty much in line with what Mill A is doing. That's just about the average as far as I know.

How Good Are Nylon Cradles?

Moderator: The next question is on the use of nylon cradles. Mill A has had some experience on his H&B.

Mill A: Not very much. We just have a few on trial basis and we're using them on a replacement basis. We've run several checks on them. Our per cent non-uniformity is unchanged. One reason we like them is that we've had a little trouble in the past with the cradle, the present alloy cradle, cutting the middle steel roll on each side of the knurl portion. These nylon cradles won't do that. One trouble I have had with it (I haven't been able to talk to one of the representatives that furnish these nylon cradles), we run a good bit of electronic slub-type yarn, and I haven't been too successful in running that on nylon cradles.

Moderator: Are there any questions on nylon cradles?

Question from audience: What are you running on these cradles you're using?

Mill A: 45s.

Question from audience: What hank roving are you using?

Mill A: .90.

Question from audience: Is that cotton or blend?

Mill A: That's a blend.

Question from audience: About how long have you been running those?

Mill A: About two months.

Question from audience: What make cradle is it?

Mill A: It comes from Watson & Desmond.

Question from audience: What type drafting system?

Mill A: H&B long draft Casablanca drafting system. Our staple length is around 2″.

Moderator: Is there anyone in the audience that's had some experience with the nylon cradle on cotton?

Reply from audience: We've got about eight frames on them. We've been running them about a year and a half. We like them.

Moderator: Have you found that you've been able to reduce your overhauling frequency with nylon cradles?

Reply from audience: Well, actually we haven't had enough on there to be able to determine that yet.

How Do You Control Spooler Slack?

Moderator: The next question is how to control slack on a Barber-Colman spooler when spooling filling wind or combination wind at the same time. I tell you, that's a pretty good question. (Laughter). I'm going to ask Mill B to elaborate on that.

Mill B: I don't think you can do a good job by running both at the same time. That's about all I can say.

Moderator: What's been your experience with the filling wind on a Barber-Colman spooler?

Mill B: We haven't been able to get any spools without sluffing.

Question from audience: Mr. Chairman, could you get a show of hands here of anyone who has run filling wind on a Barber-Colman?

Moderator: Could we have a show of hands of anybody running a filling wind on a Barber-Colman spooler. One, two, three. I'll start here—one, two, three—and if these gentlemen would give us some information as to what they're doing if they feel that they can. I'll start with the gentleman on the left.

Reply: We are running 62s and 50s combed warp from a filling as well as a combination on the same spooler at 940 y.p.m. We slowed it down primarily to give us operating efficiency on the spooler. Ten-minute cycles on a 180-unit machine will give you about 18 units a minute.

Question: What kind of a stick plate blade do you use on that? Do you use the new type that Barber-Colman has, or do you use a regular metal blade?

Reply: It's a metal, regular-type blade.

Comment: Well, they've got two out; they put out a light one to use on some synthetics.

Reply: Well, this is cotton. All cotton. Not a blend.

Question: Did you say you slowed it down to 940?

Reply: 940 y.p.m. Running the bobbin on 62s spools out in about ten minutes. A 180-unit machine gives us 18 units a minute.

Question: Is that on a ten-inch bobbin?

Reply: 9⅜s.

Question: What's your yardage on that bobbin?

Reply: I couldn't answer that.

Question: What's the number of your yarn?

Reply: 62s.

Moderator: Thank you, sir. Now the next gentleman. Would you give us your speed and your yarn counts.

Reply: We're running 40s combed yarn, 1,000 y.p.m.

Question: What is the stroke there?

Reply: 2½. And we don't have any trouble.

Moderator: What per cent sluffs do you have on your retie check?

Reply: We have about 2¼%.

Question: Do you ever have any sluffs to get through that bring you complaints from other departments after it goes on?

Reply: Well, we don't want to think so, but we do have a few.

Question: What about the firmness of your cheese? On filling wind.

Reply: Well, we make a fairly firm cheese.

Question: Whose cam do you use? In the spinning?

Reply: The Piedmont cam.

Moderator: Thank you, sir. Now the next gentleman who held his hand up.

Reply: We're running 46s combed and carded at about 1,000 y.p.m. I don't know whether it's general or not, but we are using Anti-Wedge rings on the spinning frames at spindle speeds of 11,000 to 12,000. We go as heavy as it is possible to go on a traveler. Whether you normally spin as heavily as possible on your traveler, I wouldn't know, but we do. We feel we get a better spin by spinning very heavy. One thing you still have to watch even under these conditions is the build and the traveler weight. They have to be watched very carefully or you will run into trouble and start getting sluffs.

Plated Travelers: How Much Better Are They?

Moderator: Thank you, sir. Our next question: What maximum feet per minute traveler speed have you been able to maintain using plated travelers? In conjunction with that, we'd like to hear of any experiences with plated travelers as compared with regular.

Mill A: We've run some plated travelers, but very few of them; and I haven't done any tests on them. I do know that we have run as high as 6,200 f.p.m. on plated travelers. Of course, we've run that on a regular traveler too. But we haven't gone into any tests or experiments on it much because we have a high turnover in styles—about a 40% turnover every week—and it hasn't been feasible for us to test those very much.

Mill B: Our speeds have been 5,800 f.p.m, but we haven't made any tests. We don't even run them any more. We did run them a while. But we don't have any now.

Moderator: When you ran them, how long did you run them before you changed them?

Mill B: Three weeks; 48-hour weeks.

Comment: We're running ours 6142 f.p.m. and we don't get but about a week out of them, about 144 hours. We have run them longer, but you have to pay for it after a week's time. That's the way we've found it. The boys that sell them tell you that they'll go three or four weeks.

Question: You say you pay for it when you try to run them more than a week. What do you mean? Do they burn, do they melt?

Reply: Well, a regular traveler at the speeds you run today doesn't last too long. You won't get over two or three days out of a regular traveler with that kind of high

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speed on it. You get a little better wear with the plated traveler, a little longer life.

Question: What did you say your traveler speed was?

Reply: 6,142 f.p.m. That's 11,731 spindle speed.

Comment: When they sell you these travelers they say will run three months, what would happen then?

Answer: I'm afraid you'd scar your ring, and your ends-down would be out of this world.

Question: Well, would you load up with cotton or what?

Reply: That, of course, depends on the styles. On a half-round traveler, we found that they don't load too badly, but after 144 hours they go to cutting. Then you damage your yarn; you increase your ends-down.

Moderator: Could we have a show of hands of everybody that's running plated travelers on a 100% operation? How about a show of hands of people running them even on an experimental basis. This gentleman, here, running them on a 100% operation, would you like to comment on them, please sir?

Reply: We have a new ring, and naturally we broke them in on a regular traveler. We still haven't gotten up to the maximum life of the traveler yet. We changed them at 96 hours, 6,800 f.p.m. But we feel they can go a little longer.

What's The Best Traveler To Use On 40s To 43s Count, Two-Inch Ring?

Moderator: Anybody else have a comment to make on plated travelers? (No reply). Then we'll move on to the next question. Discuss spindle speeds around 12,000 r.p.m., two-inch ring, and what traveler gives the best results on 40s to 43s counts. Mill C, could you comment on that?

Reply: At the present time, we're running our spindle speed 11,731, and we're getting what we call fair results. You have a good bit of wear on your travelers if you don't change every 144 hours. As far as wear is concerned, we took some rings off after running them two years and we didn't find any particular wear at all.

Question: What yarn number is that?

Reply: 31.5s.

Question: Do you run an elliptical traveler on that ring?

Reply: No. We tried that, but the ring is so designed that it doesn't work out that way.

Question: That's not the flat ring?

Replys No. That's the Whitinsville Anti-Wedge ring. I think Whitin has the Kryton ring now that's something similar to it.

Question: Do you find that your ends-down go up by using these rings?

Reply: No, I don't think so. Our mill did not.

Question: Are they lower?

Reply: About the same.

Question: Same size ring?

Reply: Same size ring, two-inch ring. Number one flange.

Question: Did I understand you to say that you had an Anti-Wedge ring?

Reply: That's right.

Quesion: Did you try the elliptical traveler on that?

Reply: Yes.

Question: Did you get good results from it?

Reply: For a couple of days, yes; after that, why no. We had to go back to the regular style. The ring, as I said, was designed to run elliptical travelers. It was sold on that theory.

Question: Have you ever tried any ring that could take that elliptical traveler satisfactorily?

Reply: Really no I haven't. Now some of the boys say they have good results out of them. I've heard of them getting good results, but really I never have been able to do anything with it. And I tried hard, too. (Laughter).

Moderator: Mill A, could you tell us what you've done on your 40s—your rings and speeds?

Reply: On 40s of cotton and Dacron blend, 2¼-inch rings, we're running a spindle speed of around 10,000. We're not using a plated traveler on that. We're using a regular traveler. They average around 96 hours running.

Do Soft Top Roll Cots Improve Spinning?

Moderator: Has spinning performance been improved by changing to soft top roll cots?

Reply: Sure has. Non-uniformity is a lot better, but you've got to watch your humidity. You can't run your humidity as heavy. You're going to have to pay for it if you get that non-uniformity down. You've got to pay for it in the way of running a low humidity. That's been our experience. Now maybe not so with different types of humidifying systems. Maybe some of you have a better humidifying system than we do, but if we get 45 on our warp, why we're tickled to death.

Question: Does the break factor go up with the soft cot?

Reply: Yes.

Question: What type humidification system do you use?

Reply: A dry duct system, with the pressure head.

Question: How do you mean this when you're going to pay for it? Are you going to pay for it in weight? Breaking strength?

Reply: Well in your condition mostly. You're not going to be as comfortable in there with the low humidity as you would be if you ran a higher humidity. And your people aren't going to be as comfortable. Some of these boys have got refrigeration though, and I know they're happy.

Question: How often do you buff that cot?

Reply: Every three months. Some of the fellows are running them even longer, but we buff ours every three months. We just take a little off of them.

Question: Have you had any experience with that cot on synthetic blends?

Reply: No, sir.

Question: Do you use that on the front or the back?

Reply: At the present we're just using it on the front, but we're getting around to the back. We didn't feel like we could afford to put it on the back all at one time. It's a pretty expensive changeover. We do plan to put them on the back as the others wear out.

Question: What style of yarn did you say you're running?

Reply: 31.5s warp.

Question: You mentioned the fact that you could get 45% on 31.5s. What would you like to have?

Reply: I'd like to have 52%

Comment: I'd like to say something on that thing.

Although we have a complete refrigerated mill, we do run 50%; and we run the 728 Armstrong; and also SG-60 Dayco. We buff every four months. Being refrigerated does make a difference.

Question: Other than your comfort and health, what would you gain by raising the humidity from 45% to 52%?

Reply: Other than the comfort? Probably your regain would be a little more.

Question: Does it enter into a static situation?

Reply: That's right. You eliminate your static almost altogether if you get up there around 50-52%.

Question: Have you noticed a reduction in top roll laps since you switched over to 728 cots?

Reply: Yes, we have more. (Laughter).

Question: Do you notice an increase in hard ends right before you start your buffing?

Reply: Yes. That's another place where you have to pay.

Question: Which would outbalance the other.

Reply: We feel that the most uniform yarn overbalances the other. After all, that's what you're after today. The best yarn makes the best piece of cloth.

Question: What length roving traverse do you use?

Reply: ⅞s. We're experimenting with cutting even lower. And I think it'll work out better.

Question: You feel like you cut down loom stoppage, is that it?

Reply: Yes; and that's where the money comes from.

Question: What happens after you get over past 45?

Reply: Well, you go lapping up real bad then.

Moderator: In one of our mills which is air-conditioned, we put a frame of SG-60s on and immediately we noticed a decrease in ends-down and an increase in the quality of the yarn. We made an every-other-day analysis of the yarn on a Brush tester. We learned this. Say to begin with that non-uniformity was running 110% or 100% non-uniformity. After putting the SG-60s on we noticed that non-uniformity dropped down to around 85-88%. At the end of four weeks, it had gone back up to its original 100-110%; and at the end of six weeks it was higher than our regular cot. We found that the SG-60 would be very satisfactory if we buffed every six to seven weeks.

Comment: Well, the more you can buff those soft cots, the better off you are.

What Have You Done To Improve Running Conditions Of The 1959 Cotton Crop?

Moderator: The next question is: What has been done toward improving running conditions of the 1959 cotton crop?

Mill A: We added twist.

Question: What did you accomplish—fewer ends-down?

Reply: Yes, definitely.

Question: What about anything else? Was there less shedding?

Reply: Fewer ends-down; less shedding; and better spooling and warping.

Question: Where did you add this twist, in the card room or in the spinning room?

Reply: Both places. Roving and yarn.

Comment: That's all right if you can get by with it.

Comment: I'm not too familiar with it, but the cotton boys say the 1959 crop has got a good bit of sugar in it. Actually, our mill has had little spurts of bad running. Then it clears up. And you do find this sugar content on your rolls sometime. I can't explain it. I'm not too familiar with it. That's the biggest trouble we've had as far as running quality of the 1959 crop is concerned.

Question: Is that Eastern cotton or Western?

Reply: We're running some Memphis territory; and some California.

Question: Which one has the most sugar?

Reply: The California.

Question: What effect does this sugar have on your yarn?

Reply: It causes you a good bit of blackening; more than usual.

Question: Talking about this sugar, are you talking about honeydew?

Reply: No. That's something different. That's another new one they've sprung on us this year. (Laughter).

Moderator: Could we have a show of hands of mills that are here that blend their cotton in the opening room under the cavitomic or sugar testing process? One. Would you elaborate on that a little bit for us as to the benefits you feel you've gotten from it.

Reply: We're running now 37 bales of California cotton and 23 bales of Memphis territory. We check for both sugar and cavitoma. The sugar tests have helped us on our lap-ups; and the cavitoma tests have helped us on our ends-down in spinning.

What Is The Maximum Spindle Speed On Two-Inch Ring, Three-Inch Gauge?

Moderator: Are there any more questions about the 1959 cotton crop? The next question is: What is the maximum spindle speed that can be run on two-inch rings, 3 to 3¾-inch gauge spinning, and what type separators or balloon control rings are being used? Mill A, would you comment on that for us.

Reply: I'm not familiar with the two-inch ring. All my spinning is on 2¼ and 2½, four-inch gauge. On maximum spindle speed, we're running at the present time on 2¼-inch on 40s Dacron/cotton blend at about 10,180. Whether that is the absolute maximum, I don't know. We haven't tried too many experiments higher.

Moderator: Mill B?

Reply: No, I've had no experience with this particular set-up.

Moderator: Mill C?

Reply: No. The only thing we've got is 3½-inch gauge on warp; 3¼ on filling; but we don't have any balloon rings or separators. We did lower our thread count when we speeded our front rolls up. That might be helpful to some of the boys.

Question: How fast can you get on the 3½ without balloon control?

Reply: 147 front roll; spindle speed, 11,371, I believe.

Moderator: The next question is: What is the remedy for kinks on winders?

Reply: I would say see that the knotter is properly adjusted; see that winding plates, take-up rolls and balancing wires are properly adjusted. Also, if the tender is allowed to tie-in, and lay the cones on the rollers by hand, see that they hold the slack out of the end until tension is applied to the yarn.

Comment: The Abbott winder has a kink eliminator.

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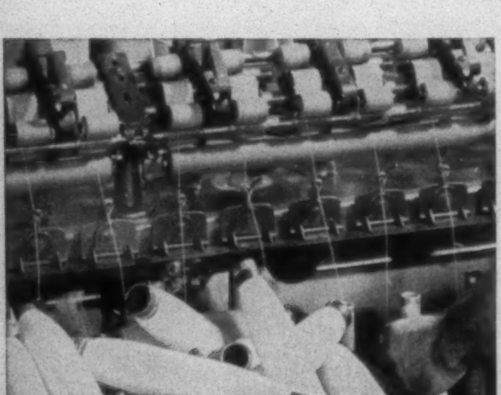

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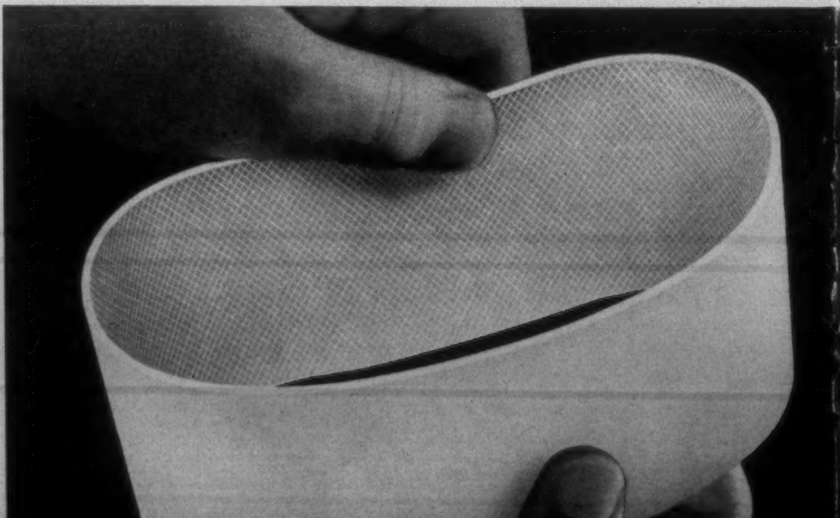

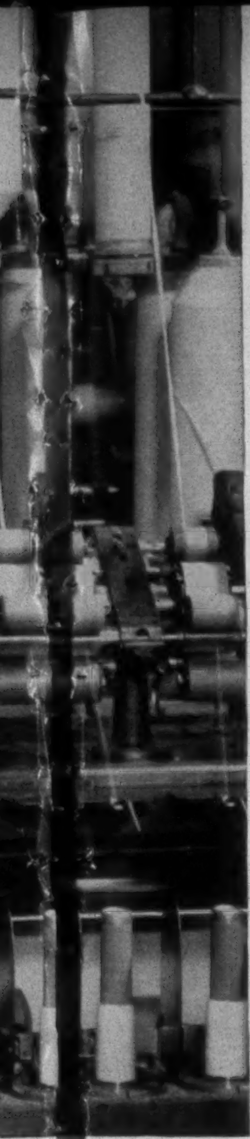

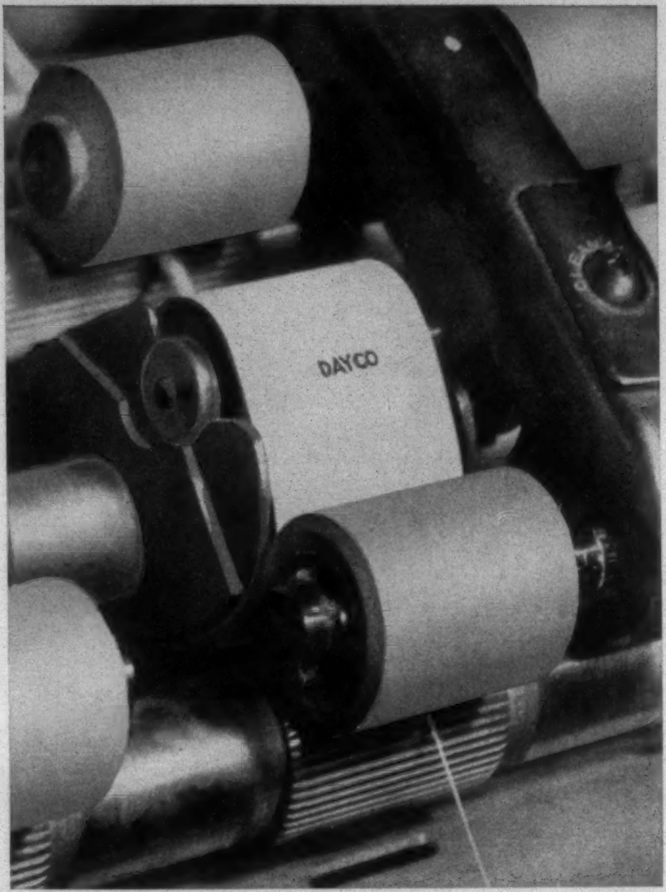

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MECHANICAL VS. CHEMICAL— A NEW VIEW ON CHECKING

Air conditions in textile plants have changed greatly in recent years. We find greater turbulence of air over the cleaners, a marked increase in number of motors, plus motors of larger size, air conditioning and many other air factors. Yet Dayton laboratory research and field investigation find the checking problem should be studied in terms of mechanical, rather than chemical wear-and-tear. The new sharper angle of the apron and the machines with the new nose bars, the greater demands on machines all suggest research into synthetic compounds instead of the air conditions in the plants. Research into "rat tailing," frictional heat build-up—powerful enough to strip gears—and apron chatter promise sounder answers to apron problems than the negligible amounts of ozone found in the air.

DAYTON ATTACKS BOTH CHECKING CAUSES

Dayton researchers have as a result of this problem reformulated compounds not only to meet *chemical* conditions but also to cope with the newer *mechanical* conditions. Dayton researchers developed formulations for *lower* coefficients of frictions around the new narrow-nose tensors, yet more exacting coefficients on the apron surface for smoother more uniform yarn.

S.T.A. Report

Question: Are those kink eliminators furnished by Abbott?

Reply: Yes.

Question: How satisfactory have you found that to be?

Reply: 98%.

Moderator: The next question is: Where is the best place to control yarn waste—spinning frames, roving frames or drawing frames? Let's have a show of hands of people who handle their waste in the spinning room alone. Nobody. Roving frames? Drawing? Picker laps? Looks like we're not having any problems at all. (Laughter).

A feature of the Spring meeting of the South Carolina Division of the Southern Textile Association was a group discussion on weaving led by Louie Burkes, Calhoun Mills, Calhoun Falls, S. C. The major portion of the discussion centered on the Draper shuttleless loom, and on hand to assist Mr. Burkes on that phase was Donald Marshall, Draper Corp., Spartanburg, S. C. The following is an abstract from that portion of the meeting.

Moderator: At our meeting in Clemson last year, there was some discussion on shuttleless looms. There are some 1,200 Draper shuttleless looms operating today. Who would like to begin our discussion on this loom? Someone have a question?

Question: Does honeydew affect the operation of the shuttleless loom?

Reply: Are you speaking of Honeydew snuff, or . . . ?

Reply: I was speaking of sugar especially found in irrigated cotton. Does it affect the operation of the shuttleless loom?

Reply: I really don't know. I just don't know enough about yarn to tell you. And I wasn't being sarcastic; but I had never heard of honeydew before.

Reply from audience: Honeydew definitely affects the shuttleless loom; in two ways, in the length of your filling and in your center fork.

Moderator: Honeydew has not affected us. Does that help you now? Next question.

Question: Do you have a hard time controlling your selvage on your installation of shuttleless looms?

Reply: So far we do not.

Question: Do you have trouble running tight or slack?

Reply: We haven't had any trouble with either tight or slack.

Question: Do you have any trouble with one pick being longer than others?

Reply: We haven't run anything that we'd have a short pick on. We've only run sheeting on it so far.

With The Shuttleless Loom, Are You Bothered With More Oil In Your Cloth?

Question: Are you bothered with oil in your cloth?

Reply: Yes, but it it's not as predominant as on the conventional loom, though.

Question: Have you done anything to try to prevent oil getting into the cloth?

Reply: We're thinking of changing oil companies. (Laughter)

Question: What's the finest filling count that's been run on the shuttleless loom?

Reply: 40s is the finest we've run.

Question: Did you have any difficulty controlling 40s filling?

Reply: No.

Do You Size The Same For The Shuttleless Loom?

Question: Do you size about the same for the shuttleless loom as you do the conventional? I know the shed doesn't open as wide on the shuttleless.

Reply: We have not changed our sizing. Some recommendations have been made possibly to change sizing, but none have been made at our plant.

Question: What is the average speed of the shuttleless loom?

Reply: It depends on your style, of course. I have seen them running from 236 to 254 p.p.m.

Reply: I have seen them run as high as 285 p.p.m.

Question: Have you had any trouble with the finishing?

Reply: Yes, we have had some trouble.

Question: With the fringe?

Reply: We've nipped it too close for them. It breaks right on the singer and the tenter frame. As long as the cloth is in good condition, you won't have any trouble.

Question: Is anybody running 80-squares on this loom? If so, what kind of efficiency are they getting? And what speeds?

Reply: I don't know anybody that has run 80-squares.

Mr. Marshall: We started out with our shuttleless loom with a 100-loom installation here and 100 there on different types of fabrics and different types of goods that we felt would give the best return. We don't know for sure whether this loom will handle the whole line of goods. To give you some of the different constructions that are out, we started out at Crystal Springs on soft-filled sheetings. We started out at Pepperell on napped Canton flannels; a 3-up, 1 down twill. We went into Jefferson on the same type of goods—that's Jefferson Mills, Jefferson, Ga., we went in with 100 looms there—and we're running soft filled goods and twills. The next installation went into Dan River Mills and they started up on 64x64 muslin, 22s warp, 22s filling. Calhoun Mills at Calhoun Falls started up the same thing. They're doing a very good job at Dan River on that type of goods. Cannon has 150 running 64x64 pillowcase. We have had no trouble with the finishing of that type of goods to date. We've had problems with slack selvages; with tight selvages—we've had our problems. We've got roughly 1,200 looms out; and we're learning more about these looms every day. We don't begin to learn about a loom until we get it out of our laboratory and get it into the mill. The more we learn from you fellows having the loom, the better it's going to help us develop this loom. We're making about 100 looms a month, right on out through the rest of the year. We're going into other types of goods. We are not yet in production running 80-squares. Woodside is running 67x72 print; but most of the looms at Woodside are still on carded broadcloth. Dan River is starting up new looms on percale and so far it looks pretty good. We've got a lot to learn. We've run, in the lab, combed broadcloth, spuns—we're starting up some new looms next week on spun rayons— etc.

How Many Shuttleless Looms Can One Fixer Handle?

Question: How many looms can a fixer handle on this shuttleless loom?

Reply: I can't answer that because we don't have enough of them.

Reply: We only have one fixer on a 100 looms. That's all we have.

Mr. Marshall: We have an installation of 150 looms at one mill, and one fixer is handling that all right. We don't know really until we get more looms in operation—more than 100 or 150—just what they can do because a lot of these jobs are divided up and some fixers are doing nothing but fixing and some have continuous loomfixing maintenance. Some fixers do nothing but fix a loom; and others do some warping and overhauling, as you know. We'll know a lot more about it when we get more looms out.

Question: Since you don't have the open shed you have on the conventional loom, do you have less shedding? And what are the cleaning frequencies on the shuttleless?

Reply: I think you'll find on the shuttleless loom that you'll have more shedding due to the increase in speed. On cleaning, I think an overhead cleaner is a must. Also, due to certain characteristics of the loom, you have to do a lot of hand cleaning. At the present time, we haven't worked out a definite and complete schedule on it. A lot will depend, too, on the fabric you have on the loom. For example, on broadcloth you have to be very particular about the cloth being contaminated with oil. On print cloth, you can get away with a little oil. We're anticipating a change in our sizing formula, but at the present time our size is going to remain the same as it is on our regular print constructions.

Question: It was stated that one particular mill runs 150 looms. What gives the loomfixer that's handling those 150 looms the most trouble?

Mr. Marshall: The biggest problem is 150 looms. (Laughter) Honestly I think the shuttleless loom is easier to maintain.

Reply: I think your biggest problem is your filling.

In Making Settings On The Shuttleless Loom, Must You Go By the Book?

Question: How many degrees off your normal standard setting can you go before this loom will begin giving you trouble on its dial setting in relation to your filling motion? In other words, how many degrees plus or minus can you be off and still operate efficiently?

Mr. Marshall: That's like asking us how high is up. I don't know.

Reply: The reason I asked that question, I put dial wheels on a number of looms in one mill on W-3 looms. We found that we could deviate five degrees plus or minus without any noticeable effect. I just wondered if you had

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found out anything on that on the shuttleless.

Question: In making your settings, have you gone away from the book to play with it? And what happened?

Reply: We always come back to the book.

Mr. Marshall: You shouldn't get away from the book.

Reply: I will say that on your filling it's very critical as far as your settings on your filling control. As far as other settings, I've found out that there's little difference.

Question: Have you had any lost motion? And has it caused wear?

Reply: We haven't run into any excessive lost motion. We have had some lost motion due to the fact that the gears wear just a little bit. Not enough to give any trouble.

Question: How far can you go on fancy designs on these shuttleless looms?

Mr. Marshall: We've got capacity up to six harness so far.

Question: What about in your filling motion?

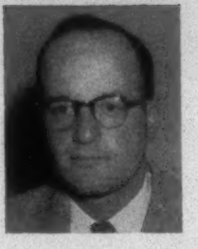
Mr. Marshall: One type of filling. That's all so far. Incidentally, talking about settings, the fixers that are going to start up a new shuttleless loom job will come into a school. They stay at this school—and this school now is in the South—four weeks, five days a week. We go through the complete settings book; and go through the manual operation of the loom. We've got three looms in Spartanburg. One of them has a warp in it running all the time. The other two looms are available to set. I feel that after the fixers get through the four weeks of school, they've got a pretty good background for picking this thing up. This is advanced training that we furnish at no charge and which we feel is a definite advantage to a mill in buying our loom. What do some of you fellows think of that training, those of you that have had it?

Reply: The training school has been most helpful. Everybody we talk to that has an installation of Draper's shuttleless loom says the training school is a must.

Northern North Carolina-Virginia Division

APRIL 23, SPRAY, N. C.

THE Northern North Carolina-Virginia Division of the Southern Textile Association held its Spring 1960 meeting Saturday, April 23 at Morehead High School, Spray, N. C. Spray Cotton Mills acted as host for the meeting. Welcoming the group to Spray was Welsford Bishopric, president of Spray Cotton Mills. Highlighting the meeting were seven group discussions on topics ranging from opening and picking through quality control. The following is a transcript of some of the topics covered in the session on slashing led by Calvin Ussery of Erlanger Mills, Lexington, N. C.



Herman Cone Jr. of Cone Mills Corp., Greensboro, N. C., is chairman of the Northern North Carolina-Virginia Division.

Question: When tying-in warps, does anyone use end-to-end leases?

Answer: I've heard reports of mills leasing end-to-end especially on ginghams but I haven't found anyone who's doing it.

Answer: I don't know of anybody who's doing it but I don't see why it could not successfully be done. It can't be done with a filament stand—you have to move the comb up and down through the various sheets instead of moving the sheets up and down in the comb. You can do that with a stand that works up and down. You have to keep tension on the yarn at all times.

Question: While we're on leasing of cotton warps—what's the general practice?

Answer: We lease every warp.

Answer: We lease every warp.

Answer: We lease just at the warp out.

Question: There seems to be a little controversy as to whether it's best to lease at the end of the beam being doffed or doff the beam and lease the beginning of the new warp.

Answer: I haven't had any experience there. We lease on the warp we're doffing.

Question: By end lease, do you mean putting in a lease say 100 yards before the doff?

Answer: Somewhere in that neighborhood.

What Do You Think Of Drawtex Machines?

Moderator: How many have a Drawtex machine? What do you think of it?

Answer: We have a very large Drawtex operation. We probably run 60% of our work through the Drawtex.

Moderator: Do you have any scheduled re-drawing?

Answer: Most of the time our scheduling is set up so that we try to portable tie anything possible but generally can do that only on repeat patterns. Therefore, we have to draw everything else.

Discussion On Stripes

Question: I would like to hear some discussion on stripes. We run about 75% stripes.

Question: Anybody running any stripes?

Reply: We run them. Practically all of them are beam dyed.

Question: Do you run stripes on the warper?

Reply: We dye our section beams solid. If there are not enough ends, say you have a hundred ends, we'll have to make up a beam.

Question: Do you stripe it on the back or the front?

Reply: On the front.

Question: Then you lay it in?

Reply: That's right.

Question: Anybody else ever try to stripe one like that?

Answer: We put our stripes in on the back.

Question: Is it wide stuff or is it the standard run?

Answer: A little bit of everything. Anywhere from two ends on up to a wide stripe.

Question: Do you stripe back of the comb?

Answer: Yes, and then pull the comb over and put it in the front. Our pattern work is laid in at the back. We pull the comb over and just set it in at the front and start up.

Question: You don't run a stripe through your size box?

Reply: No. If you make a mistake you can count the stripes in.

Question: Do you always lay the same number of ends in each dent in the comb?

Reply: As far as possible. But sometimes we have two or three different size yarns in our work. We run a lot of coarse yarns and fancy yarns. Some of it's sized and some isn't.

Reply: That's our problem too. On 10s 2-ply yarn we do run it through the size. I was wondering if anyone had run stripes in the back.

Reply: We have patterned some beams behind and run them in the comb—beams that don't have many ends to get to rolling.

Question: Do you ever use any combination beams?

Answer: We run a good portion of stripes—probably 75% of our work is stripes. We pick all the patterns in at the front. The comb holds the entire shed.

Comment: We run into quite a bit of trouble on the proper layout. Sometimes we have a small number of two or three colors in a warp. Depending on the pattern itself, there may be too much pull in the dye beams so we have to pattern the beam with the colored ends. Maybe two or three colors in the warp will be patterned along with some white ends. The rest of the warp is beam dyed.

Question: In other words you have the stripes right on the beam where you have just a few colored ends?

Reply: On the warper, that's right. We try to avoid over a five inch pull in the front. We don't always do that but we have that as our standard.

Question: When you run natural and dyed yarn together out of the same creel, are your dye beams dry?

Reply: No sir, we run wet dye beams.

Question: Wet and dry together? Do you find much difference in the tension?

Reply: Yes, we find some, but actually it doesn't bother us a great deal. We get a problem sometimes depending on the bulk of the yarn in the set. We try the beams giving particular trouble. At our mill we have a few colors which give us much more trouble rolling than others. We will dry these beams. However, that's a very small portion of the entire group.

Question: I've had trouble running dry yarn with wet. The wet yarn will stretch and the dry doesn't. It breaks too much.

Reply: We experience that same thing but most of the time our sets will involve more wet yarn than dry. Even though we have the same problem, it's not an acute one.

Question: We're running 40s combed cotton with less than 4,000 ends in the set. I run 2-ply yarn in the selvage. What about you, if you were running a set of that construction, would you put your ply yarn in the selvage or not if you had a choice?

Reply: I think it is always better to run all your yarn on the section beam if you can and not pull anything off the creel behind a slasher.

Reply: We used to run plyed selvage from the creel. We never have run plyed yarn on the section beam.

Question: Why is that?

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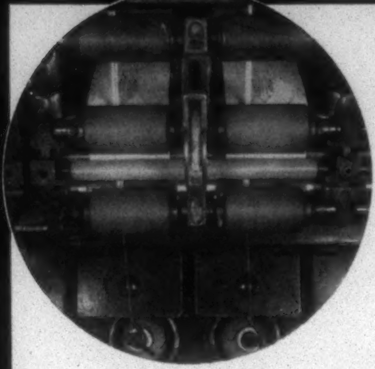

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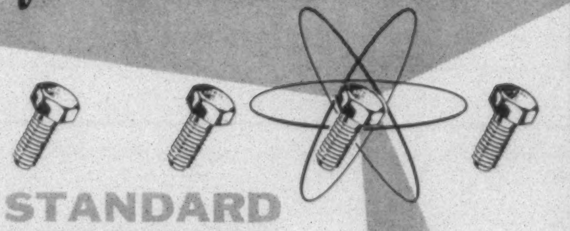

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Reply: Because of the tension differences.

Reply: We don't have any problem with the tension. Our problem comes from the size pick-up. You can't dry ply yarn as fast.

Question: Do you run your ply yarns through the box?

Reply: Yes.

Question: Why don't you run it out and let it drag on the top of your rolls?

Reply: Because I haven't been smart enough to get it out there yet.

Reply: Most folks either run it through the squeeze rolls or just let it drag over the top of the rolls.

Question: What kind of a slasher do you have?

Reply: We have two that we run cotton on. We have one Johnson nine-cylinder slasher.

Question: Is that what you run your 2-ply on—the nine cylinder?

Reply: Yes.

Question: What size box?

Reply: Double quetch—regular Johnson.

Question: Have you tried running ply ends over the top of the squeeze rolls?

Reply: No.

Question: Have you ever tried putting your ply yarn creel on the front of the slasher?

Reply: No. I haven't run any that way although I've been thinking about it.

Question: How wide is your cloth?

Reply: 54 inches.

Reply: You'd better run it across the top of your cans, not even touch your cans.

Reply: I've got plenty of room to do that.

Reply: We do a lot of 10s 2-ply that way. Where we have more than two beams we put ply ends in the top creel and run them around the roller not touching the cans at all.

Question: Why don't you run single yarn in the selvage?

Reply: We're running filament in our warp and we need the ply yarn's strength, that's the big reason.

How Can We Split The Shed To Get Even Drying?

Question: We have a bad migration problem and want to know how we can split the shed to get even drying. We have a three-cylinder slasher, with two seven-foot and one five-foot cylinder. We have a double size box. One seven-foot cylinder is over the five-foot cylinder. The other seven-foot cylinder is in front.

Question: Is the yarn running through both boxes?

Reply: Yes.

Question: Why don't you split the shed in the box?

Reply: We can't because we are running the top shed through one box and the bottom shed through the other box.

Question: Why don't you split it on the cans then? Dry the top shed on the top cans and the bottom shed on the bottom cans.

Reply: You're going to lose a little bit but you don't have to come in that front can completely dry.

Question: How many section beams do you have?

Reply: We have 14.

Question: I was just wondering if you had an even number or an odd number.

Reply: Sometimes it will be more than 14 and sometimes it will be an odd number.

Reply: We sometimes use split rods outside the size box.

Question: Do you have one split rod or two?

Reply: One.

Question: Is the yarn pulling the split rod or does it have some help from the bottom?

Reply: The yarn pulls it entirely.

Reply: The yarn is following the rod on one side and dragging on the other.

Reply: We don't like to do it, but we have found that that's the only way—we don't have double size boxes.

Are You Running Tapioca Size?

Question: I'm curious to know how many, if any, are running tapioca size?

Answer: I'm running tapioca.

Question: On cotton?

Reply: Yes.

Reply: We've run some samples.

Reply: We ran a right smart of it at one time but went off it.

Question: What did you have against it?

Reply: The cooking procedure was one thing. Another thing was that we kept running into spots in the warp that I've never been able to explain. Maybe half the warp would be good and the rest of the warp wouldn't weave. About the only thing we could trace it to was the speed. It didn't pick up good. It would pick up good at high speed but if you ever went to creep speed then the thing looked like you'd hit a spot in the warp where you could hardly weave it through.

Question: What type yarn were you running? What counts?

Reply: It was 14s singles, 16s, 17s.

Question: What kind of pick-up were you shooting for?

Reply: The best I remember is that it was 12 to 14%.

Reply: Of course any time you run at creep speed there's going to be a difference in your pick-up and it can be a substantial difference.

Reply: The only thing we ever traced it to was creep speed.

Question: You said something about your cooking procedure—cooking time?

Reply: Yes. It took about an hour longer in cooking procedure.

Reply: That could have been handled very easily with some of these enzymes. Just go up on the amount of your enzymes and cut down cooking time. You can cut your length of cooking time by any length of time you need to. I ran it on spun rayon mostly. We dropped our cooking time from 1½ hours to an hour by going up on the enzymes.

Question: I've read a little bit about this new size Du Pont is putting out. Anybody had any experience with it?

Reply: I haven't had any experience with it.

Reply: They brought some over to the mill here a while back and tried it out on the warp. We're still trying to get it out of one of our kettles. It all lumped up when we poured it in there.

Reply: Like everything else in textiles, this is an age of scientific developments, and we are liable to have something new here tomorrow that will be better than anything anybody ever heard of. Of course, everyone tells me that they have the thing in the can that is going to solve all my problems. I wait to see what's in the can and I still have a lot of the same problems. There are not too many new things that just come in and take over the place of old stand-by methods that have been used for 20 years or so.

Question: I wonder if anybody is using Hercules C.M.C.

Reply: We used a little of that at our mill. We found it fairly successful. It took us a long time but we were faced with the problem of stream pollution. We've been experimenting with it for two years.

Eastern Carolina Division

APRIL 30, RALEIGH, N. C.

T. B. Stevens of Erwin Mills Inc., Erwin, N. C., is chairman of the Eastern Carolina Division.

THE Spring 1960 meeting of the Eastern Carolina Division was held Saturday, April 30 at the School of Textiles, North Carolina State College, Raleigh. Following welcoming remarks by Dean Malcolm E. Campbell of the School of Textiles, a report on "The Draper Shuttleless Loom" was given by J. M. Tuten of the Draper Corp.'s Spartanburg, S. C., district office. The group then divided into three discussion groups on carding; spinning; and slashing and weaving. The following is a transcript of the highlights of the discussion on slashing and weaving led by John Dickerson, Cone Mills Corp., Hillsboro, N. C.

Moderator: Does your size pick-up vary much? Do you have good control over your viscosity of your size?

Question: We have variation in C.M.C. The first I got I had very light pick-up. The last I got seems to have a viscosity about twice as heavy as the other.

Moderator: I think that's true in C.M.C. and they claim that the lighter the viscosity in C.M.C. the more you can control the viscosity. If you go with a thicker viscosity the more variations you'll have in your pick-up.

Question: Is anyone interested in a continuous record of size pick-up? In the slasher?

Moderator: I would think so. I think you have to check that very often. We have a regular schedule of sending our samples to the laboratory and checking size pick-up.

Question: But do you think it would be worth while to have a continuous record like you have temperature?

Moderator: Yes, I think so. We have a viscometer that tells you the viscosity of the size but that doesn't tell you the pick-up. I don't know how you would measure the pick-up on the slasher. Does anyone have a method of doing that? The viscometer is very important. If you keep that viscosity the same, you're putting size on the yarn pretty evenly. But then I think you should go farther than that. You should send samples to the lab at least once a month and let them find the pick-up you are getting. On corn starch we were picking up around 14%. On C.M.C. we are picking up right around 6%.

Question: Do you get as good a weave with the C.M.C. as you were getting with corn?

Reply: I can't answer that question. At the time we put it in our work was improving in the mill. Of course, we've been playing with it about three years and we haven't proved that the C.M.C. ran any better. We kept up with the picks and the production on C.M.C. for a long time and we found very little difference between the corn starch and C.M.C.

Moderator: Does anyone want to comment on your system of checking pick-up?

Question: We would like to know if there would be any market for a means to check pick-up on the slasher. We know it can be done.

Moderator: I personally think there would be a market for it because like I said a bit ago, if you control the viscosity that doesn't mean you control the pick-up. Because so many things can change the pick-up with the same viscosity.

Trouble With Air Dryer Slashers?

Moderator: Shall we move on? I have another question here. Is there anyone in this group that has an air dryer slasher? We are having trouble with ours. When we first put it in it didn't take any steam at all to run it. Now we put it up to 90 pounds of steam and we can't get over 45 to 50 y.p.m. Of course, when we put it in we'd run with ten or 15 pounds of steam and run 70 y.p.m. And we didn't have any trouble. Can anyone help me on that?

Reply: I think you're just saying exactly what everybody that has one says.

Moderator: Take it out and put in some cans. Maybe that's the answer.

Reply: Someone told me that Uxbridge was recommending two cans. A can directly behind the slasher.

Moderator: Yes, they're doing that. They recommend another pass in there which will give you 10% more or you can put two cans behind your slasher and then you can pick it up 40% more. But I'm not too sure that that's the way to do it.

Question: You say your slasher proved very satisfactory when you first got it. About how long have you had it?

Moderator: We put it in 10 or 12 years ago.

Question: Did your slasher speed pick up any when you put the C.M.C. in?

Moderator: No, the C.M.C. is harder to dry than the corn starch, because you have so much more water in it. We're picking up 14% on corn starch and on the C.M.C., the type we're using, we're picking up about 6%. So you have more water in your C.M.C. than you do in your corn starch. And then the C.M.C., the type we're using, has about 35% salt in it. And I think that has an effect on it.

Moderator: I have one more question and then I'll get back to the regular questions. Has anyone changed from 26-inch section beams on the slasher to 30-inch section beams? And did you have any trouble with them? Did you have any trouble with rolling ends then?

Question: What do you mean "rolling"?

Moderator: Well, the yarn next to the selvage rolls and breaks out of the lease more.

Reply: I put an individual rod on each one of mine and

S.T.A. Report

pull it off independently. And not wrap it around another beam at all.

Moderator: How many have the individual rod that guides the yarn off of the beam in the creel rather than interlacing each beam with the yarn? Do you like it?

Reply: It's all right.

Shuttle Tension And Change Marks

Moderator: Does anybody else have any questions on slashing? I'm going on in to weaving. The first question is: Type of shuttle tension used to prevent shade change on colored work,

Answer: I don't know anything about colored work but I know a low quill will cause a shuttle change mark on any kind of work. You should have your shuttle men to have your quill raised just a little so after it runs a little it will set back down and be parallel with the eye.

Moderator: Draper has a new spring out that I like very much. It's a rib-type spring; maybe a lot of you have tried that but it holds the quill very rigidly. It seems to me that that's one of the important things in these changes—to hold your quill rigidly. If it's loose or if it's low, it's going to make those marks. I think if you pack too much down to the butt of the quill you make those marks.

Reply: We were checking the quills when we were having these shuttle marks, change marks. I had to raise those shuttle springs $\frac{1}{32}$ of an inch. This is true even in new shuttles. With that and changing the nylon loops—putting in a little lighter nylon than we had before—we solved most of the problem.

Moderator: On those nylon loops, it's my opinion that if you don't have control over your filling with a light nylon loop, don't go to a heavier one—put more nylon loops in. Because if you do go to the heavy loops you will still get change marks and you will also get broken picks. You want your filling to come out of your shuttle smooth—not in kind of a ripple.

Comment: I'm almost on the verge of making a plug but still trying not to—I have done quite a bit of work with tension on shuttles. Some of the findings on fur bristle and nylon loops can be summarized like this: As far as tension is concerned I have never seen a nylon loop that will give a low and uniform tension as, say, fur for filament work. But nylon loops can be arranged extremely well to give very good tension pattern on any type spun synthetic or cotton. There are various ways that the nylon loops can be arranged both vertically on the front and back wall of the shuttle and also to kill the balloon, you may start at a low point of the back wall of the shuttle going lengthwise and put it on the top in the back. That will tend to kill the balloon. There are various types of nylon loops which people have tried. Many people who say that they cannot use nylon loops have had a nylon which is a monofilament group bonded together. Those individual strands will wear and break out and then make a ragged place on the loop which will cause the filling to break. And these people haven't had any success at all with nylon loops. They say, "We can't run it." Yet you will see in another mill the situation where you can run nylon loops and they have just a different type of nylon.

Moderator: I think you're right. There's one thing that I did try that you mentioned. Running the nylon from the back of the shuttle to the front of the shuttle. Now that stops your ballooning and gives you very good tension for a short length of time. But it's such a long strand of nylon that it loses its ability to hold. Then you get your ballooning—it's not practical. You could put it in and make your test and show a good test, but where I've used nylon I find you have to use a smaller loop because the larger your loop, the less control you have over your nylon. That's just my opinion. There's one thing that was mentioned—these quills that you can test the alignment of your quills with the eye of the shuttle. If you have one of those and keep it in the supply room and check those shuttles as they come in and send the ones back that are out of line you'll give these boys a fit but it'll do you a lot of good. They're doing a splendid job now, I think, in keeping the quills in line.

Longer Lasting Shuttles:
More Shuttle Spring Problems

Reply: One thing along the line that you're talking about —everybody who's making shuttles today is experimenting with plastic shuttles, plastic walled shuttles and various kinds of shuttles that will last longer. When your shuttle lasts twice as long then the shuttle spring problem becomes much more acute. I think most mills don't change their shuttle springs often enough especially if they've increased the life of the shuttles.

Moderator: We have a program now of checking our shuttles—the fixer checks his third twice a week. I agree that these new shuttles will wear out more springs—sometimes as much as four springs. I'm using a lot of Southern shuttles. I like this new Southern eye.

Reply: I've got some new Southern shuttles with the new eyes.

Modeator: Do you like them?

Rpely: Yes, sir.

Moderator: Has anybody had any experience with the new eye that Southern puts out? I think if we had Draper's spring and Southern's eye we'd have a shuttle.

Reply: And get the wood from Watson & Williams.

Moderator: They have a new eye now that has a loop down under the bottom of it and I don't think it's possible for you to unthread that eye. I can't find anyway to unthread it. It threads up good on a transfer and it's looking good.

Comment: When an eye does come unthreaded it does cause a lot of broken picks.

Portable Tying-In Machines

Moderator: Anyone want to comment on the portable tying-in machine?

Reply: You comment on yours.

Moderator: Well, it's been a headache.

Question: How much more does it cost you to tie them on a portable than it does with the stationary job?

Moderator: I think we'll save money on the portable machine after we get it set up. You have to be very persevering with the training program on that. We had a world of trouble when we first set it up. We are getting a lot of the trouble out of it. Who else here has a tying-in machine?

Reply: We've got a Barber-Colman tying-in machine with two knotters and six racks. We run six men on it and put a seventh man in every once in a while whenever a big run-out comes. We get as high as 50 warps in eight hours.

Moderator: I'd better throw mine in the river and get a Barber-Colman then, if you can do that. I have 838 looms.

Reply: We have 3,000 and 5,000.

Moderator: How many machines do you have?

Reply: Two knotters and six racks.

Moderator: And you have how many operators?

Reply: Normally we have six.

Moderator: Does that include your smash hands also?

Reply: That's including two pull-over hands.

Moderator: Two pull-over hands and your smash hands?

Reply: No, the smash hands work separately.

Moderator: The pull-over men don't smash the warps?

Reply: No.

Moderator: Well, my warps ran from five to six weeks. I have 838 looms on corduroy. We have one loom cleaner on this tying-in job. We have one man to tie. We have one tying-in machine and we have six frames. We have two men to prepare the warp. These two men and the tying-in man work together as a team. We also have two smash hands.

Comment: The way ours is set up we have one man to run the two knotters—that's all he does. Then we have a man who loads the racks; we have two men to put warps in and two men to pull knots over. They work as a team. When we have 50 or 60 warps to run out we use a seventh man to help the loading-up men.

Moderator: We put in an extra man. We're not tying but about 14 to 15 warps a shift. We can tie 20 to 22 warps a shift if we put in an extra man. We don't require the operator to pull over the knots. But with this machine the man can only run one machine. That's where you're making your time—one man running two machines. You're certainly doing a splendid job.

Question: How much downtime per loom are they having?

Reply: Just going to it and getting to it runs about 30 to 45 minutes.

Moderator: Do you have any trouble with doublings?

Reply: Very few. If we have as many as three crossed ends in the warp we have to re-tie it.

How Often Do You Grease Auxiliary Cams?

Moderator: The next area is cleaning and greasing. Anyone have a question?

Reply: I'd like to ask a question on auxiliary cams. I'd like to know about how often they should be gone over.

Reply: That would depend more or less on what grease you're using.

Moderator: Can anyone answer that question? I grease mine when the warps are out.

Reply: We couldn't very well do that because they run three months on ours.

Reply: About four days is about what we get on greasing.

Moderator: How do you grease your cams after you get your warp on your looms?

Reply: Take a long handle brush.

Moderator: You grease it from the front of the loom?

Reply: Just give it a swipe with the brush.

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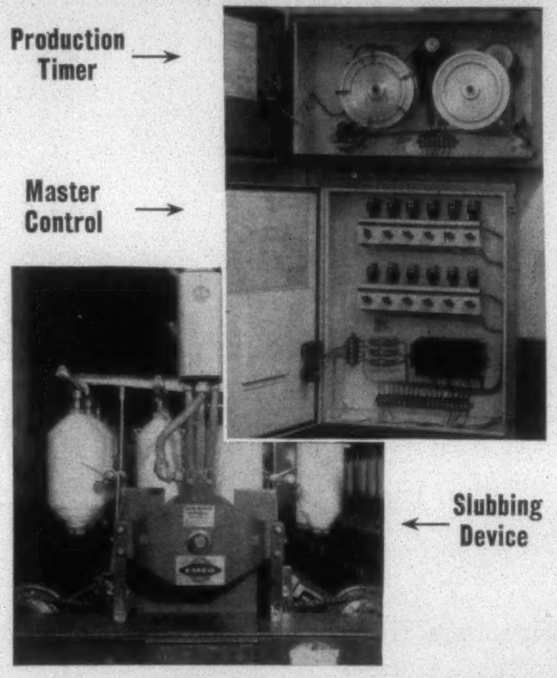

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S.T.A. Report

Question: That way you're greasing the cams; how about the bracket the treadle works on?

Moderator: You have adjustable treadles, don't you?

Reply: We have adjustable treadles.

Piedmont Division

MAY 7, CHARLOTTE, N. C.

M. L. Brackett of Highland Park Mfg. Co., Charlotte, N. C., is chairman of the Piedmont Division.

HIGHLAND Park Mfg. Co. played host to the Spring 1960 meeting of the Piedmont Division at Charlotte on Saturday, May 7. Highlighting the technical portion of the program were group discussions on carding, spinning and spooling; and on weaving and slashing. The following is a transcript of the highlights of the session on carding, spinning and spooling led by J. W. Inscoe of Carolina Mills Inc., Maiden, N. C.

Question: What type chemical additives or spray do you use on cotton at the opening or picking?

Answer: We use Texspray.

Answer: Texspray.

Answer: We use Gulf oil.

Moderator: Give us some of the results of what you're using. How good is it? What percentage do you use?

Answer: We use .5%.

Answer: We use .1%.

Answer: We use .2%.

Moderator: Do you use less or more on the better grades of cotton?

Answer: We use the same; of course our grade doesn't change too much. We use it to keep down dust in the card room, that's about all.

Moderator: Have you found by using it that it causes your spinning to run not quite as good?

Answer: Yes, we think it has a very definite effect on later machines.

Moderator: I've heard some people say that when they use oil they don't have quite as good running conditions in the spinning room—that is, from loading of the travelers for instance.

Answer: We never have recognized that. We have debated at length the effect on break factors. I think one other variable in the use of oil is the method of application. This is a greater variable than the amount applied or whether or not they use it. You see it in conveyor lines, back in the hopper feeder and that sort of thing.

Moderator: Well where do you make your application?

Answer: We put ours in just at the end of a feeder belt or conveyor belt. In most of our opening rooms now we have conventional enclosed hoppers—feeder hoppers with a conveyor line to an Axi-Flo, then a Superior cleaner. So we put it in at the end of the conveyor belt.

Moderator: At the end of the opening line, in other words?

Answer: Yes, just before it enters the Axi-Flo.

Moderator: Where does someone else apply it?

Answer: The same way except we put it between the first and second feeders. We do that to keep from loading up the screens and so forth.

Moderator: Still on the conveyor but it covers it up with your last feeder?

Answer: Yes.

Moderator: Where else is it applied?

Answer: Just after it leaves the conveyor in the hopper.

Answer: Picker beater.

Moderator: That's the front beater?

Answer: No, the back beater.

Answer: I believe we have made as many different applications as any other mill in the country. We tried it in the picker room and found that if we put in say .1%, we only had it on probably 20 or 25% of the fibers. The same thing happened when we put it in the feed hopper. Then we put it just before the conveyor pipe starts into the mill. We figure there it goes on about 90 to 95% of the fibers. Then we're able to put in a greater amount of oil if we wanted to and not show any signs of loading up on any of the machines.

Moderator: What percentage are you using?

Answer: We are using .175%. We have gone as high as .3%.

Moderator: What effect did you get when you went to .3%? Did you get any bad effects?

Answer: Not putting it in this way and on the type cotton we used at that location. If we had tried that on the screen or in a hopper or on a picker roll, we would have been in for a lot of trouble.

Question: Do you think that the use of the .3% increased your neps on the card?

Answer: Well, at that particular time I couldn't say because that was one of the big problems we were having.

Moderator: Do you think that any amount of oil that any of you are using affects your cleaning any in processes further on? Do you get as good cleaning with oil as you would without oil?

Answer: Yes, we do.

What Type Build Do You Use?

Moderator: Our next question is: What type build do you use on bobbins in spinning?

Answer: Combination.

Moderator: What type build are you using with a Barber-Colman spooler.

Answer: We use filling holders on 30s yarn and finer.

Moderator: What about coarser than that?

Answer: We use combination.

Moderator: What count range is that?

Answer: Most of it 30s—20s to 30s.

Moderator: What is your winding speed?

Answer: We just recently cut it to 900.

Answer: 26s and 30s.

Moderator: Here's a question that's been knocked around quite a bit in the last few years: What experience have you

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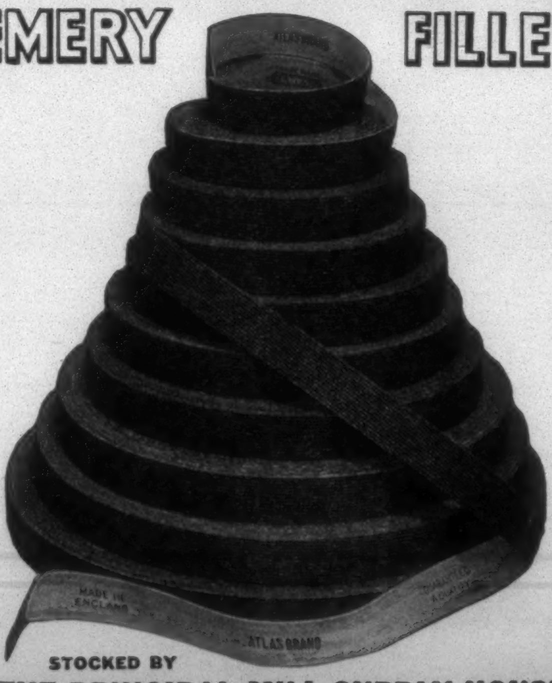

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had with high-speed rings?

Moderator: How many here are using high speed rings—that is, other than conventional rings?

Answer: We have 21,000 spindles on 31s carded wool. We have just completed an installation of 2-inch rings and we started in roughly at 11,000 and we're running 11,000 with practically no problems.

Answer: We've installed 20,000 spindles of 2-inch rings on warp—around 9,000 spindles on 1⅜-inch on filling. We strated our frames off at conventional speed around 11,000. They're doing all right. Of course, it took about two weeks to break the rings in, but that's considerably better than some rings.

Moderator: Is any one using slower speeds to break these rings in or is everyone starting them at the speeds they expect to use them?

Answer: I have about 18,000 we started up that way. They took maybe a day longer to break in than we were told. We're getting very good results from them.

Moderator: How many in here are running traveler speeds above 6,000? What about 6,500? It looks like 6,000 to 6,500 is about the limit.

Plated Travelers: How Would You Rate Them?

Moderator: What has been your experience with plated travelers? How many are running plated travelers? Just one.

Answer: We've had very favorable experience. We run plated travelers on our warp. Where we were changing every four days we've gone to ten days. Of course, the plated travelers are more expensive. We feel that it is even as far as consumption is concerned; and we're saving as far as labor is concerned. We've been on plated travelers for about six months and they look pretty good so far.

Moderator: Do you use any block creeling?

Answer: We're very interested in block creeling. The main trouble we've found so far is that we are unable to get the same number of yards on a roving bobbin.

Moderator: We went so far as to put yardage counters on all our roving frames.

Answer: We've had yardage counters, too. We feel that block creeling is more economical for a high-change job than it is on a one-count job mainly because we think block creeling will afford you an opportunity to combine duties.

Moderator: What per cent waste were you able to get out of it in your experience with block creeling?

Moderator: I don't remember what it was but we thought it was too high.

Answer: The best we've been able to do—without pursuing all the possibilities—is just under 3%. We figure that's excessive. We'd settle for 1½%.

Question: How many frames have you been trying block creeling on?

Answer: Just one spinning frame and one roving frame. That's to minimize the variables between roving frames and spinning frames.

Moderator: Gentlemen, our time is up.

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Institute Of Textile Technology Re-Elects Roger Milliken To Post Of Board Chairman

Milliken

Roger Milliken, president of Deering, Milliken, Spartanburg, S. C., has been re-elected chairman of the board of trustees of the Institute of Textile Technology, Charlottesville, Va. Milliken was re-elected at a recent two-day meeting of the trustees and the institute's technical advisory committee. Other officers of the board who were re-elected are: J. L. Lanier, president of West Point (Ga.) Mfg. Co., vice-chairman; Dr. L. H. Hance, president of the institute; C. H. Merriman Jr., executive vice-president of Crompton-Shenandoah Co., Waynesboro, Va., secretary; and Percy S. Howe Jr., chairman of the American Thread Co., New York City, treasurer.

Elected as a member of the executive committee was Fuller E. Callaway Jr., chairman of Callaway Mills Co., LaGrange, Ga.

Lester Sayers Named Chairman Of Alabama Textile Operating Executives

Lester Sayers, manager of Opp (Ala.) Cotton Mills, was named general chairman of the Alabama Textile Operating Executives at the group's general Spring meeting in Auburn. Sayers succeeds Wendell Morriss, Avondale Mills, Birmingham.

W. N. Scroggins, superintendent of Opelika (Ala.) Mfg. Corp., was named vice-chairman. Cleveland Adams, head of the School of Textile Technology, Auburn University, was re-elected secretary-treasurer. Elected to three-year terms on the executive committee were: Charlie Harris, Pepperell (Ala.) Mfg. Co.; and George Mac Willingham, assistant manager, Langdale (Ala.) Mills. J. B. Faubus, Bemis Bros. Bag. Co., Talladega, was named a member of the executive committee for a one-year term.

Dean Fred Pumphrey, in welcoming the group to Auburn, said that Auburn University now has the research facilities and the staff to help Alabama textile mills solve their problems and improve their products. The school is also entering into a series of short courses designed to benefit the state's textile industry.

Edwin Wilkinson Is Renamed Head Of The National Ass'n Of Wool Manufacturers

Edwin Wilkinson was renamed president of the National Association of Wool Manufacturers at that group's recent annual meeting in the Waldorf-Astoria Hotel, New York City. Glen F. Brown was renamed secretary-treasurer of the group. Five new vice-presidents and ten directors were also elected. New vice-presidents are: George Asnip, Excelsior Mills Inc., Pendleton, S. C.; H. King Cummings, Guilford (Me.) Woolen Mills; Morton H. Darman, The Top Co., Boston, Mass.; Harold J. Walter, Bachmann Uxbridge Worsted Co., Uxbridge, Mass.; and Arthur O. Wellman, Nichols & Co., Boston.

Directors-at-large are: Charles K. Bishop, Pendleton Woolen Mills, Portland, Ore.; William I. Kent, The Kent Mfg. Co., Clifton Heights, Pa.; John H. McGowan, Wyandotte Worsted Co., Waterville, Me.; Roger D. Newell, Cyril Johnson Woolen Co., Stafford Springs, Conn.; T. B. Nilsen, J. P. Stevens & Co., North Andover, Mass.; J. H. Stursberg, Livingston Worsted Mills, Holyoke, Mass.; James B. Tait, Rock River Woolen Mills, Janesville, Wisc.

Group directors are: Ralph Whitaker, Fred Whitaker Co., Philadelphia, Pa., combers; Ames Stevens, Ames Textile Corp., Lowell, Mass., worsted women's wear; Kenneth W. Marriner, Marriner & Co., Lawrence, Mass., topmakers.

The association presented Golden Fleece awards to Miss Arlene Francis, television personality, Bertrand Hayward, president of the Philadelphia Textile Institute; U. S. Senator B. Keating (R., N. Y.); G. Norman Winder of Denver, Col., a rancher, leading founder and now president of Woolens & Worsteds of America, which promotes American-made wool products.

1959 U. S. Fabric Production Estimated At Nearly 12.4 Billion Linear Yards

According to figures compiled by The Association of Cotton Textile Merchants of New York, U. S. production of cotton, wool, silk and man-made fiber textiles in 1959 totaled nearly 12.4 billion linear yards. The figure reflects an increase of 725 million yards (6.2%) over the 11.6 billion yards produced in 1958. At the same time, however, it falls six-tenths of 1% under the ten year (1949-58) average of 12.4 billion plus yards. The figures used in the report have been gleaned from statistical data released by the Bureau of the Census.

In terms of consumption, the figures reflect a gain of 2.94 yards per capita at 69.74 from the low point reached in 1958, but the past two years remain the lowest in the history of this series going back in Government figures

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See page 15

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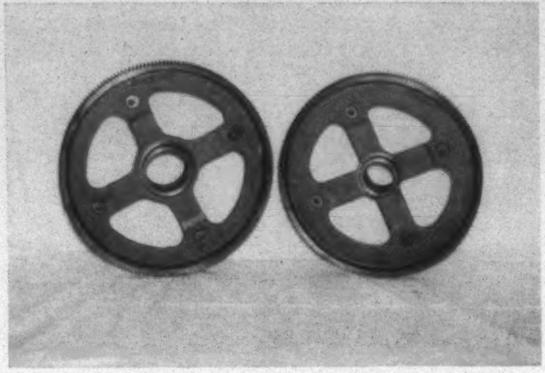

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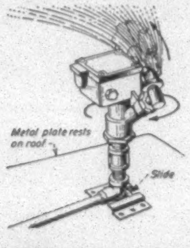
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to 1941. Average per capita production was 77.24 yards for the decade 1949-1958. Production in pre-war 1939 was 76.66 yards per capita.

Increases in production for 1959 over 1958 were shown in the total production of cotton broad woven goods which at 9.6 billion linear yards made the best showing for any year since the peak post-war year of 1956 when 10.3 billion yards were made. The gain from 1958 was 586 million yards or 6.5%. Every major division of cotton goods recorded increases, and two of the eight divisions, fine cotton fabrics (with 1.6 billion yards) and towels, towelings and dish cloths (with 570 million yards) set new all-time highs.

While the new man-made fiber fabrics category (excluding rayon, acetate) continued its almost uninterrupted march and set a record high of 847 million linear yards, rayon and acetate broad woven goods at 1.6 billion yards were 58 million short of 1958 figures. The 100% filament yarn fabrics at 669 million yards set a record low, and 100% spun fabrics showed a sharp decrease, although above their 1957 low. Combination fabrics were off slightly. On the other hand both the pile, upholstery, drapery, tapestry and tie fabrics group, and the "all other" classification registered new highs.

Woolen and worsted fabrics at 306 million linear yards were the best since 1956, advancing from the low point of 270 million shown for 1958. Silk and miscellaneous fabrics likewise gained from 1959 and were the best since 1956.

Per capita figures are given below in linear yards and are without export-import adjustment:

1937 *(est.)*	78.64	1950	86.30
1939 *(est.)*	76.66	1951	83.49
1941	94.93	1952	77.43
1942	98.56	1953	81.08
1943	93.36	1954	77.07
1944	84.97	1955	79.35
1945	77.42	1956	76.89
1946	81.50	1957	70.78
1947	85.84	1958	66.80
1948	84.60	*1959	69.74
1949	73.22		

*Preliminary

James L. Naylor Of American Cyanamid Named To Head The Vat Dye Institute

Naylor

The Vat Dye Institute has decided to continue and expand its efforts in support of the increased use of quality colors in textile products, according to James L. Naylor, newly-elected president. The institute will attempt to make a much greater contribution to the textile market by broadening its purpose to include the use of all dyes, and to promote the use of quality colors especially in areas where dyes are not now widely used.

Naylor is the manager of the dyes department of the organic chemicals division of the American Cyanamid Corp. He succeeds H. J. Daignault, vice-president of National Aniline Division, Allied Chemical Corp., who was elected treasurer and chairman of the finance committee of the board of directors.

The Vat Dye Institute is made up of ten dyestuff producers and is a non-profit organization established to expand the consumption of vat colors.

Promotions, Resignations, Honors, Transfers, Appointments, Elections, Civic and Associational Activities

PERSONAL NEWS

Stone

William H. Stone has been appointed Southeastern division manager for the textile industry with headquarters in Atlanta, Ga., by National Starch & Chemical Corp., New York City. Stone joined National in starch sales in 1946 and in 1956 he became Midwest starch sales manager at Chicago. He will make his headquarters at National's Atlanta office.

Dr. Reginald L. Wakeman has been named vice-president and director of research and development by the Onyx Chemical Corp., Jersey City, N. J. Dr. Wakeman joined the predecessor of Onyx Chemical Corp., then known as Onyx Oil & Chemical Co., as director of research in 1945. In 1951, he left to become technical director for Quaker Chemical Co. in Conshohocken, Pa. Most recently, he was director of new research and development for the Packaging Corp. of America in Grand Rapids, Mich.

Ault

Thomas J. Ault has announced his resignation as president and director of Saco-Lowell Shops, effective July 1. Ault stated that his two-year assignment at Saco-Lowell, to reorganize and re-house the company, and to take it from an operating loss into an operating profit, to all intents and purposes has been completed. When Ault joined Saco-Lowell in 1958, the 147-year-old company had been losing money for some time. The major portion of its manufacturing facilities were housed in 100-year-old buildings at Biddeford, Me. In the past two years the company has been completely re-housed in four modern manufacturing plants at Easley, S. C., Sanford and Jonesboro, N. C., and Saco, Me.; a completely new research and development center was built at Clemson, S. C., and its replacement parts division was consolidated in a modern depot at Greenville, S. C.

David F. Edwards has been returned to participation in the management of Saco-Lowell Shops as chairman of its board of directors. Edwards joined the company as president in 1926 and served as its chief executive until his retirement from active management in 1952, after which he continued to serve as a director and honorary chairman of the board. The resignation of Thomas J. Ault as president and director was given as the reason for Edwards' return. . . . Royden Walters, executive vice-president, has also been named general manager. Responsibility for the operations of the firm will be continued under Walters' direction.

Heit

Charles Edward Hett Jr. has been named sales engineer for Georgia, Alabama and Tennessee by the Dixon Corp., Bristol, R. I., and Charlotte, N. C. Hett will spend all of his time selling and servicing Dixon engineered change-overs for all types of spinning drafting. For the past year Hett has worked for the repair sales division of Whitin Machine Works. He will relocate in Columbus, Ga., where he will head up the Dixon sales office.

R. L. Stevens, personnel director of Reeves Bros. Inc., Eagle & Phenix Division, Columbus, Ga., has been elected chairman of the personnel managers division of the Georgia Textile Association. Stevens succeeds S. A. Cook of Riegel Textile Corp., Trion. . . . Eugene W. Owen, Canton Cotton Mills, Canton, was elected vice-chairman. . . . Named to the executive committee for three-year terms were: Morgan Butaud, Swift Mfg. Co., Columbus; J. H. White, Chicopee Mfg. Corp., Cornelia; and S. H. Williams, Pepperell Mfg. Co. at Lindale.

Dunlap

G. H. (Floopy) Dunlap, director of the placement bureau and chairman of the scholarship committee in North Carolina State College's School of Textiles since 1943, has been named "Man of the Year" by the college chapter of Phi Psi, national honorary textile fraternity. Dean of the School of Textiles, Dr. Malcolm E. Campbell, made the presentation. The award has been presented annually since 1946. The first award went to the late Dr. Thomas Nelson, former dean of the college's School of Textiles. Other award recipients have been Governor Hodges; the late David Clark of Charlotte; William H. Ruffin of Durham, president of Erwin Mills; the late Herman Cone of Greensboro; J. C. Cowan of Burlington Industries; Albert G. Meyers, president of Textiles Inc., Gastonia; Halbert W. Jones, president of Waverly Mills, Laurinburg; Charles H. Reynolds, vice-president, Spindale Mills; William G. Allgood of American & Efird Mills, Mt. Holly; and other textile industry leaders. In honoring Dunlap, Phi Psi praised him for "noteworthy contributions to the textile industry and textile education." Dunlap is a native of Rock Hill, S. C., and attended public schools there. After receiving his B.S. degree in textiles from Clemson College, he took graduate work at the University of North Carolina, Massachusetts Institute of Technology and Pennsylvania State College. He obtained practical manufacturing experience

What method saves you 17% of steel strapping?

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in two South Carolina cotton mills, and spent the next 13 years as a member of the Clemson textile school faculty. In 1941, Dunlap was appointed research supervisor of the Southern Textile Association, and in this capacity visited hundreds of mills in the Southeast. Among the research projects which he completed and which received wide publicity in the industry was a study of cotton card speeds, which helped many mills to increase their production to meet war requirements.

Holmes

Allen B. Holmes has been named Southern regional manager for Durant Mfg. Co., Milwaukee, Wisc. Holmes replaces J. K. McGinley, who was recently named the general sales manager for Durant. Holmes has been through the company's orientation program and has assumed full managerial duties.

W. S. Sollenberger of the American Viscose Corp. has replaced C. T. Anderson of the Ciba Co. as vice-president of the Central Atlantic Region of the American Association of Textile Chemists & Colorists. Anderson moved from the Central Atlantic region and has had to relinquish the duties connected with this office. Sollenberger announced the appointment of R. P. Monsaert Jr. of the American Felt Co. as chairman of the nominating committee for the selection of one or more candidates for regional vice-president for 1961.

Robert R. Alexander has joined the Dewey & Almy Chemical Division, W. R. Grace & Co., Cambridge, Mass., as research chemist in the organic chemicals division. Alexander has been with the Callaway Mills Co., LaGrange, Ga., for six years.

Donald B. Tansill has relinquished his duties as chairman of the board of M. Lowenstein & Sons, New York City, but will remain as a consultant and director of the company. Tansill's post will be merged with that of the executive chairman of the board, held by Leon Lowenstein.

Harold A. Swanson has been named vice-president in charge of the technical products division of E. F. Drew & Co. Swanson will direct all marketing, sales and research for the division, which is the source of Drew-originated products and processes in the field of textile chemicals. Before joining Drew's executive staff, Swanson was vice-president and director of Nopco Chemical Co. of Newark, N. J., with whom he was associated for 23 years.

Carpenter

Robert L. Carpenter has been named sales representative for Emkay Chemical Co., Elizabeth, N. J., to work in the North Carolina-South Carolina area. Carpenter, a chemist and finisher, in recent years has worked with Burlington Industries, Dublin Finishing Division; Delta Finishing Co.; Bishopville Finishing Co.; and the American Thread Co. He will make his home in Greenville, S. C.

Charles E. Boger of Concord, N. C., has been named to represent Rhodia Inc. to mills in North Carolina and Virginia. Rhodia is the New York office of Societe Rhovyl, French fiber producer.

Bryson

G. L. Bryson Jr. has been named to represent the Graton & Knight Co., Worcester, Mass. Bryson will represent Graton & Knight in the Carolinas, Tennessee and Virginia. Bryson was formerly Southern representative for Alexander Bros. Both Alexander Bros. and Graton & Knight Co. are manufacturers of textile leathers, and are divisions of the L. H. Shingle Co.

Larry O. Bellerose, formerly with Whitin Machine Works, has been named sales engineer for the New England territory for Carter Traveler Co., division of A. B. Carter Inc. of Gastonia, N. C.

Paul Seydel, formerly executive vice-president of Seydel-Woolley Co., Atlanta, Ga., has been named president of the company. Seydel joined the company in 1934 as a chemist. He was later research director and executive vice-president. . . . Vasser Woolley, formerly president and chairman of the board, will continue as chairman of the board. Woolley has been with the company since 1924. He had served as president since 1942. . . . David Meriwether has been named a vice-president of the company. Meriwether was previously vice-president and general manager of the Rockland Bleach & Dye Works, Baltimore, Md. . . . Carl Blumenstein, formerly research director, has been named technical director. Before joining the company in 1947, Blumenstein was with the American Enka Corp. and Nopco Chemical Co. He joined the company as a chemist and later served as chief chemist.

Braswell

Charles W. Braswell has been appointed by Seydell-Woolley & Co. as the technical sales representative of its finishing chemical division for the Alabama-Georgia-Tennessee territory. He was previously connected with the dyeing and finishing division of Standard Knitting Mills, Knoxville, Tenn.

C. Richard Eichhorn has been named administrative assistant to the vice-president in charge of research and development at Cone Mills Corp., Greensboro, N. C. Eichhorn's duties will include managing a new statistical section for research and development in Cone Mills. He comes to his new position from that of office manager of the Proximity Print Works Plant which he has held since 1958. . . . John Milligan Jr., formerly with J. P. Stevens' Slater, S. C., plant, replaces Eichhorn at Proximity Print Works.

Enloe

Gordon W. Enloe has been named sales representative for Howard Bros. Mfg. Co., Worcester, Mass. Enloe will travel out of the firm's Atlanta, Ga., plant. Enloe studied textile engineering at Auburn. He has had some 25 years experience in all phases of cotton manufacturing.

G. Scott Watson Jr. has resigned as secretary and treasurer of the Spry & Watson Mills Inc., Hickory, N. C. Watson has not revealed his future plans.

Stanley A. Burke, development engineer at Foster Machine Co., served as discussion leader at a three-day seminar conducted by the American Management Association in New York City, April 20-22. Burke has been associated with Foster for 30 years in the field of production, engineering, product engineering and development.

Robert E. Bailey has been promoted to overseer of compounding, dyeing and finishing at the Hillside Plant of Callaway Mills Co., LaGrange, Ga. Bailey was formerly assistant overseer. Prior to joining the company in 1958 as a trainee he was associated with Stein, Hall & Co., Charlotte, N. C. . . . Edward (Ned) Edge has been promoted from trainee to plant manager of the Elm City Plant. Edge is a graduate of

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Belting

Georgia Tech. . . . Glenn I. Conway Jr. has been promoted from trainee to Hillside sales. Conway joined the company in September 1959. He is a 1958 graduate of Georgia Tech.

League

Frank League Jr. has joined his father in the G. F. League Mfg. Co., Greenville, S. C. League attended Clemson College. He will cover mills in North and South Carolina and will assist other representatives in Georgia and Alabama. League Mfg. handles textile wood parts and supplies.

William R. O'Shields, senior technical service specialist for the Chemstrand Corp., Decatur, Ala., has been appointed resident technical services representative at the Chemstrand nylon plant now under construction at Greenwood, S. C. O'Shields, now assigned at Chemstrand's nylon plant at Pensacola, Fla., will report to the new plant prior to start-up in the Fall of 1960. Prior to joining Chemstrand in 1954, he served for nine years in supervisory positions with the Judson Mills of the Deering-Milliken group, Greenville, S. C.

Suttenfield

W. H. Suttenfield, vice-chairman of the board and manager of the New York office of American & Efird Mills, Mt. Holly, N. C., is retiring. Suttenfield has been with the company since 1941. Prior to that he served as general manager of the Superioı Yarn Mills, Mt. Holly. He will remain on the firm's board. . . . Louis Schaeffer will head the New York office.

James Thomas Gresham has been named the outstanding 1960 senior at Georgia Tech's A. French Textile School. Gresham was chosen by the textile school faculty to receive the annual award of the Georgia Textile Manufacturers Association for "superior achievement in textiles." The basis for the award is all-around excellence, including scholastic standing, leadership qualifications and potential value as an executive in the textile industry.

Louis D. Scott has been promoted to the position of director, Acrilan manufacturing of the Chemstrand Corp., New York City. Scott, who has been manufacturing manager of Chemstrand's Acrilan acrylic fiber plant at Decatur, Ala., since 1958, succeeds Dr. Kenneth Johnson, who has become director, research administration, for Chemstrand Research Center Inc. Scott joined the corporation in 1952 in the technical department of the Pensacola, Fla., nylon plant.

Wilson A. Reeves has been appointed chief of the cotton chemical laboratory of the U.S.D.A.'s Southern Utilization Research and Development Division. Reeves was formerly head of chemical modifications investigations of the division. A chemist, he will be responsible for several areas of research, all dealing with chemical treatments to improve the end uses of cotton textiles. Program emphasis is on wash-and-wear. Reeves is a member of the American Chemical Society, the American Association of Textile Chemists & Colorists, and Sigma Xi.

G. R. Turner has been named manager of textile sales for the U. S. Testing Co., Hoboken, N. J. Turner has been associated with the company for the past 30 years. His new duties will include supervision and co-ordination of all textile sales activities. . . . R. H. Armitage has been named associate director of research for textiles at U. S. Testing. Armitage has been with the firm for the past 22 years. In his new post he will supervise many of the applied research programs in the textile division.

G. Horace Moody has been transferred to the Valway Plant of Callaway Mills Co., LaGrange, Ga., as overseer of industrial yarn department of the yarn unit. Prior to his transfer he was carding overseer at the Milstead, Ga., plant. Moody joined the company in 1946 as an overseer. . . . Otis Vowell has been transferred to Valway as overseer of the carpet yarn department of the yarn unit. Previously he was overseer of carpet yarn at Unity Spinning Plant. He joined the company in 1929.

Dr. John P. Hollihan has been named director of the central research laboratory of J. P. Stevens & Co., Garfield, N. J. Dr. Hollihan was previously with American Viscose Corp. and Rayonier Inc.

Frederick L. Bissinger has been named president and chief executive officer of the Industrial Rayon Corp., Cleveland, Ohio. Bissinger was formerly vice-president and general manager. He joined the firm in 1942 as its patent counsel. . . . Hayden B. Kline, who formerly held the post of president, has been named chairman of the board of directors. He joined the company in 1925 as a research chemist and has served as an officer since 1930 when he was named vice-president.

Erwin

W. J. Erwin, president of Dan River Mills, Danville, Va., will be awarded an honorary degree by Clemson College, Clemson, S. C., on June 5. He will be recognized for his contributions to the textile industry with the degree of Doctor of Textile Industries. Erwin is a graduate of Clemson with a B.S. degree.

Joseph L. Eastwick and Horace C. Jones, both of Bridgeport, Pa., have been elected to the board of directors of Burlington Industries Inc., Greensboro, N. C. Eastwick, chairman of the board of James Lees & Sons Co., a wholly-owned subsidiary of Burlington Industries, was also named a vice-chairman of the Burlington board. He had been the chief executive officer of James Lees & Sons Co. for many years, and in addition is a director of several banks and corporations. Jones is president of James Lees & Sons Co. He has been connected with James Lees during his entire business career. He is a director of the Taylor Fiber Co. of Norristown, Pa.

Jackson

T. J. Jackson has been named sales engineer of the Saco-Lowell textile machinery division. Jackson will work out of the Atlanta, Ga., office, under the direction of James Wright, district sales manager. For the past eight years he has been with Howard Bros. Mfg. Co., first as sales engineer and more recently as district manager, covering both Georgia and Alabama.

OBITUARIES

George M. (Spud) Coker, superintendent of Wehadkee Yarn Mills, Talladega, Ala., died April 30. He is survived by his widow and a daughter.

Louis Rosen, 78, chairman of the board of Northwick Mills, Dalton, Ga., and a leader in the development of the tufted textile industry, died May 9 in Atlanta, Ga. Rosen leaves his widow, three sons and a daughter.

What method saves you

17%

of steel strapping?

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MILL NEWS

CONSTRUCTION. NEW EQUIPMENT. FINANCIAL REPORTS. CHARTERS. AWARDS. VILLAGE ACTIVITY. SALES AND PURCHASES

GREENSBORO, N. C.—Cone Mills Corp. reports that its unfilled order position is the best in a number of years with orders 25% ahead of last Spring. Sales of $200 million have been forecast by the company for 1960 as compared with sales of $190 million in 1959. Profits are expected to be "moderately better." In the quarter just ended, Cone reports consolidated net sales of $47.5 million. This compares with sales of $45.6 in the first quarter of 1959. Net income was $1.1 million as compared with $964,000 in 1959.

NEW YORK, N. Y.—Riegel Textile Corp., with its subsidiaries, reports consolidated earnings of $1.3 million on sales of $50.6 million for the 28 weeeks ended April 16. This compares with earnings of $623,000 on sales of $48.9 million in the comparable period of 1959. Net profit before taxes was $2.8 million as compared with $1.3 million in 1959.

KINGSPORT, TENN.—J. P. Stevens & Co. has ordered 279 frames of Whitin STA spinning changeover for its Borden Plant here. In addition to the 89,209 spindles of STA top arm weighting material, new bottom rolls and compound draft gearing are also included in the order. Delivery is scheduled to start in mid-Summer.

OPP, ALA. — Opp-Micolas Cotton Mills here plans to spend $2 million on expansion over the next few years. The company reports that it has averaged more than $400,000 on new equipment each year. The two mills, with 1,355 looms, are now in a position to produce fabrics in the medium and heavyweight class.

SPINDALE, N. C.—Stonecutter Mills Corp. has begun construction of its new spinning plant addition. The addition is expected to cost between $1.5 million and $2 million. Room is being provided for approximately 400 additional looms and other machinery which is expected to give employment to an additional 150 to 200 persons. The addition will cover approximately 80,000 square feet, approximately doubling the present plant space.

GREENSBORO, N. C.—Burlington Industries has completed the second phase of a long range communications modernization program. The first project was completed in June 1959. When the program is completed, Burlington offices and plants will be connected by what is said to be one of the most modern communications systems, enabling faster handling of orders and providing better customer service. The first phase of the program consists of an automatic teletypewriter circuit which extends from New Brunswick, N. J., to Memphis, Tenn., and includes terminals in Virginia, North Carolina, South Carolina and Georgia. A similar circuit which was placed in service recently services the greige goods sales office in New York and manufacturing plants in the South. Burlington Industries is composed of more than 100 plants and 34 separate sales divisions, most of which are directly connected by direct line teletypewriter service.

GASTONIA, N. C. — Net sales of $15.4 million have been reported by Textiles Inc. for the six months ended April 2 as compared with sales of $13.9 million in the comparable period of 1959. Net profit for the period was $866,000 as compared with $560,000 in 1959.

NEWNAN, GA. — The cotton plaid mill and dye house of the former Newnan Mills here have been purchased by Stanley Granat and Irwin Bloch from Comer Machinery Co. of Atlanta. Newnan, formerly a division of Mt. Vernon Mills, Baltimore, Md., was taken over earlier this year by the Comer interests. Bay City Fabrics Inc., a newly-organized concern, will act as selling agent for Newnan. The mill makes fine combed plied colored yarn box loom fabric.

DANVILLE, VA.—Dan River Mills reports net earnings of $1.9 million on sales of $43.6 million for the 13 weeks ended April 2. This compares with earnings of $1.3 million on sales of $42.7 million in the same period in 1959. Earnings before taxes on income and minority interests were $4.4 million against $2.9 million in 1959.

SPARTANBURG, S. C.—Spartan Mills plans expansion projects totalling $95,000 for its Spartan plant and its Beaumont Mills Division. Beaumont will use $60,000 of the investment for a new company-operated general merchandising store.

ASHEVILLE, N. C.—Dan River Mills Inc. has officially taken ownership of the Sayles Biltmore finishing plant near here. The newly-acquired plant will continue operation under the name of Sayles Biltmore Bleacheries Inc. A new corporation has been chartered, and with the permission of the former owners, the name of Sayles Biltmore Bleacheries will be perpetuated. The new corporation is a wholly-owned subsidiary of Dan River and is capitalized at $3 million. W. J. Erwin has been elected president and John J. Newton, who will have over-all responsibility for Dan River's finishing operations in Danville, Va., and in Biltmore, has been elected executive vice-president.

GADSDEN, ALA. — Cone Mills Corp. is liquidating its Dwight Division here. Southern Mills Supply Co. of Athens, Ga., has been named liquidating agent to sell the machinery and equipment of the division. Cone closed the mill last Spring, when a strike halted its operation, and moved a portion of its machinery and other equipment to its other plants. The mill formerly employed some 2,000 persons.

DURHAM, N. C. — Net profit of Erwin Mills Inc. for the quarter ended March 31 was $676,000 on sales of $16.1 million as compared with $297,000 on sales of $17.9 million in the comparable period of 1959. For the six months ended March 31 the company reported profit of $1.1 million on sales of $30.9 million as compared with profit of $438,000 on sales of $33.7 million for the comparable six months in 1959.

NEW YORK, N. Y. — M. Lowenstein & Sons Inc. reports net income of $2 million for the first quarter ended March 31 on sales of $124.8 million. This compares with net income of $853,000 on sales of $112.1 million in the first quarter of 1959. Income before taxes in the first quarter was $4.2 million as compared with $1.7 million in the first quarter of 1959. The first quarter earnings for 1960 are the highest since the first quarter of 1956.

GREENSBORO, N. C.—Olympic Chemical Co., in which Cone Mills Corp. has a major interest, will be located in the building formerly occupied by the Revolution Rayon Plant here. Operations are expected to be under way in July. Olympic will produce polyurethane foam for the furniture and rug industries and for other uses. This is a further step by Cone Mills in its diversification program. Officers of the new company, in addition to Robert W. Ward as president, will be Sydney M. Cone Jr., vice-president; Harold W. Smith, secretary-treasurer; and Alan W. Cone, assistant secretary. Between 25 and 30 people will be employed at the start of operations.

CHERAW, S. C.—Burlington Industries is said to be considering the construction of a $6 million mill here. Burlington has an option on 90 acres of land near Cheraw. Daniel Construction Co., Greenville, is said to be figuring on the plant which would reportedly have about 300,000 square feet.

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textile bulletin

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TEXTILE BULLETIN is devoted to the dissemination of information and the exchange of opinion relative to the spinning and weaving phases of the textile industry, as well as the dyeing and finishing of yarns and woven fabrics. Appropriate material, technical and otherwise, is solicited and paid for at regular rates. Opinions expressed by contributors are theirs and not necessarily those of the editors and publishers. ¶ Circulation rates are: one year payable in advance, $1.50; two years payable in advance, $2.00; one year, Canada, $3.00; one year, other countries in Postal Union, $5.00; single copies, 25 cents. ¶ A companion monthly journal, THE KNITTER, is published by Clark Publishing Co. and devoted to the interests of the knitgoods manufacturing industry.

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Let's Forget The Free Rides

THE following editorial appeared in the May 13th issue of *The Wall Street Journal*:

Round And Round

WELL, one can hardly blame the Association of Cotton Textile Merchants of New York for trying. After all, Uncle Sam has put a serious crimp in their business by selling surplus cotton abroad cheaper than anyone can buy it here, thus permitting importers of foreign cotton goods to undersell U. S. manufacturers.

So when they suggest to Secretary of Agriculture Benson a way to "increase U. S. raw cotton consumption, improve employment in U. S. mills manufacturing cotton bag fabrics and also aid bag manufacturers, and contribute to the nation's export effort," one is disposed to view their ideas sympathetically.

Briefly, they want Mr. Benson to order all the 16 million tons of surplus wheat and one million tons of rice we've agreed to send to India shipped in cotton bags.

Their plan would do something for cotton, to be sure. It would use 340 million bags, or 394 million yards of cotton cloth, or bringing it down to the bale, 325,000 bales of cotton, to wrap up 17 million tons of grain.

But it would do something quite different to the taxpayer. Cotton bags cost 20 cents each, so shipping the wheat in bags would add about $70 million to the cost of the grain the taxpayer has already paid the farmer for and for which the U. S. will be paid mostly in India rupees to be used in India as part of our U. S. aid program.

Considering that wheat is now loaded by simply pouring the stuff into the holds of ships, an extra $70 million just for cotton bags seems a bit steep to ask even of the U. S. taxpayer.

But as we've already noted, considering that said taxpayer is supporting this whole program, from the U. S. farmer to the Indian yogi, it's pretty hard to criticize the injured merchant for trying to climb aboard the merry-go-round, too. *(End of Quote)*

Throughout its fight for a fair shake from the Government, the textile industry has denied diligently and with dignity that domestic manufacturers are looking for a handout. Chief spokesmen have steadfastly maintained that the industry wants no special favors, only just due. The contention that the industry has been and is being hamstrung by Government policies other industries have never been subjected to is pretty well supported by such obvious inequities as the two-price cotton system.

It's true enough that seemingly little progress has been made toward implementing the remedies prescribed for the industry. But there surely can be no cure, or even any relief, to be gained by earnestly seeking a badly needed "fair shake" on the one hand while trying to climb aboard the merry-go-round on the other. Better we do away with the merry-go-round.

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TEXTILE INDUSTRY SCHEDULE

May 31-June 2 (Tu-Th)—11th Annual **COTTON RESEARCH CLINIC** (sponsored by The National Cotton Council), Grove Park Inn, Asheville, N. C.

June 6-17—Short course for **EXECUTIVES OF THE TEXTILE INDUSTRY**, School of Textiles, N. C. State College, Raleigh.

June 23-25 (Th-Sa)—52nd annual convention, **SOUTHERN TEXTILE ASSOCIATION**, The Grove Park Inn, Asheville, N. C.

Sept. 8-9 (Th-F)—Fall technical meeting, **TEXTILE QUALITY CONTROL ASSOCIATION**, The Clemson House, Clemson, S. C.

Sept. 8-9 (Th-F)—Annual meeting, **COMBED YARN SPINNERS ASSOCIATION**, The Cloister, Sea Island, Ga.

Sept. 15-16 (Th-F)—Textile Processing Symposium, **AMERICAN GAS ASSOCIATION**, Sedgefield Inn, Greensboro, N. C.

Sept. 15-16 (Th-F)—Annual outing, **CHATTANOOGA YARN ASSOCIATION**, The Read House, Chattanooga, Tenn.

Sept. 17 (Sa)—Family outing, **SOUTHERN TEXTILE OVERSEERS ASSOCIATION**, Greenwood, S. C.

Sept. 27-28 (Tu-W)—The ninth annual **CHEMICAL FINISHING CONFERENCE**, sponsored by the National Cotton Council, Statler Hotel, Washington, D. C.

Sept. 28-30 (W-F)—Annual meeting, **NORTH CAROLINA TEXTILE MANUFACTURERS ASSOCIATION**, Carolina Hotel, Pinehurst, N. C.

Oct. 3-8 (M-F)—The 21st **SOUTHERN TEXTILE EXPOSITION**, Textile Hall, Greenville, S. C.

Oct. 6-8 (Th-Sa)—National convention, **AMERICAN ASSOCIATION OF TEXTILE CHEMISTS & COLORISTS**, Sheraton Hotel, Philadelphia, Pa.

Oct. 7 (F)—Annual meeting, **SOUTHERN TEXTILE OVERSEERS ASSOCIATION**, Hotel Greenville, Greenville, S. C. (6 P. M.)

Oct. 18-19 (Tu-W)—Technical Advisory Committee and Board of Trustees Meeting, **INSTITUTE OF TEXTILE TECHNOLOGY**, Charlottesville, Va.

Oct. 18-21 (Tu-F)—Fall meeting, **COMMITTEE D-13, A.S.T.M.**, Sheraton-Atlantic Hotel, New York City.

Oct. 19-22 (W-Sa)—Annual meeting, **CARDED YARN ASSOCIATION**, The Grove Park Inn, Asheville, N. C.

Nov. 12 (Sa)—Fall meeting, **ALABAMA TEXTILE OPERATING EXECUTIVES**, Thach Auditorium, Auburn University, Auburn, Ala. (Carding and Spinning Section).

Nov. 12 (Sa)—Annual meeting, **GEORGIA TEXTILE EDUCATION FOUNDATION**, A. French Textile School, Georgia Tech, Atlanta.

(M) Monday; (Tu) Tuesday; (W) Wednesday; (Th) Thursday; (F) Friday; (Sa) Saturday

FOR A CHECKUP

A year ago, he was only reading about cancer, just as you are now. But cancer was something that happened to the other fellow. No need for *him* to go to a doctor.

Now that he knows better, it is unfortunately too late. He is one of the 75,000 cancer patients who will die needlessly this year because they did not see their doctors in time.

... AND A CHECK

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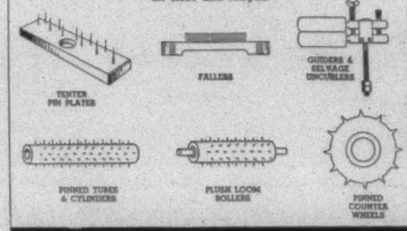

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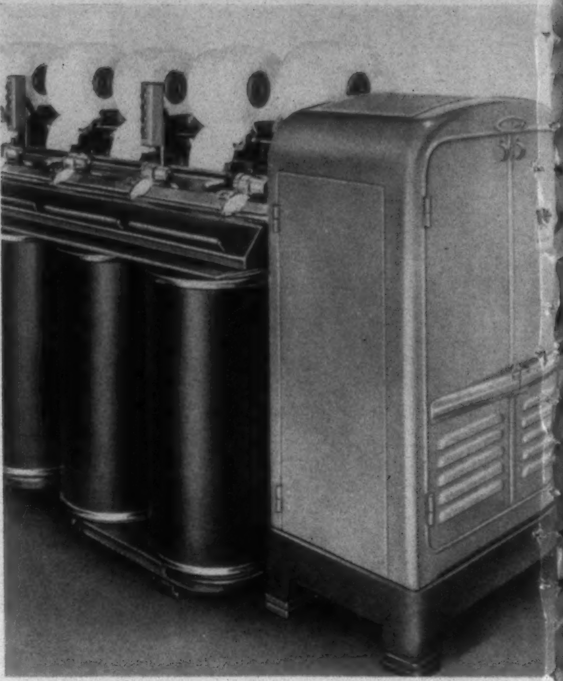

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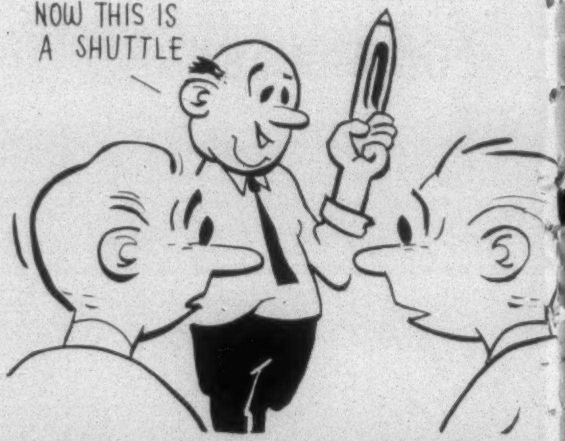

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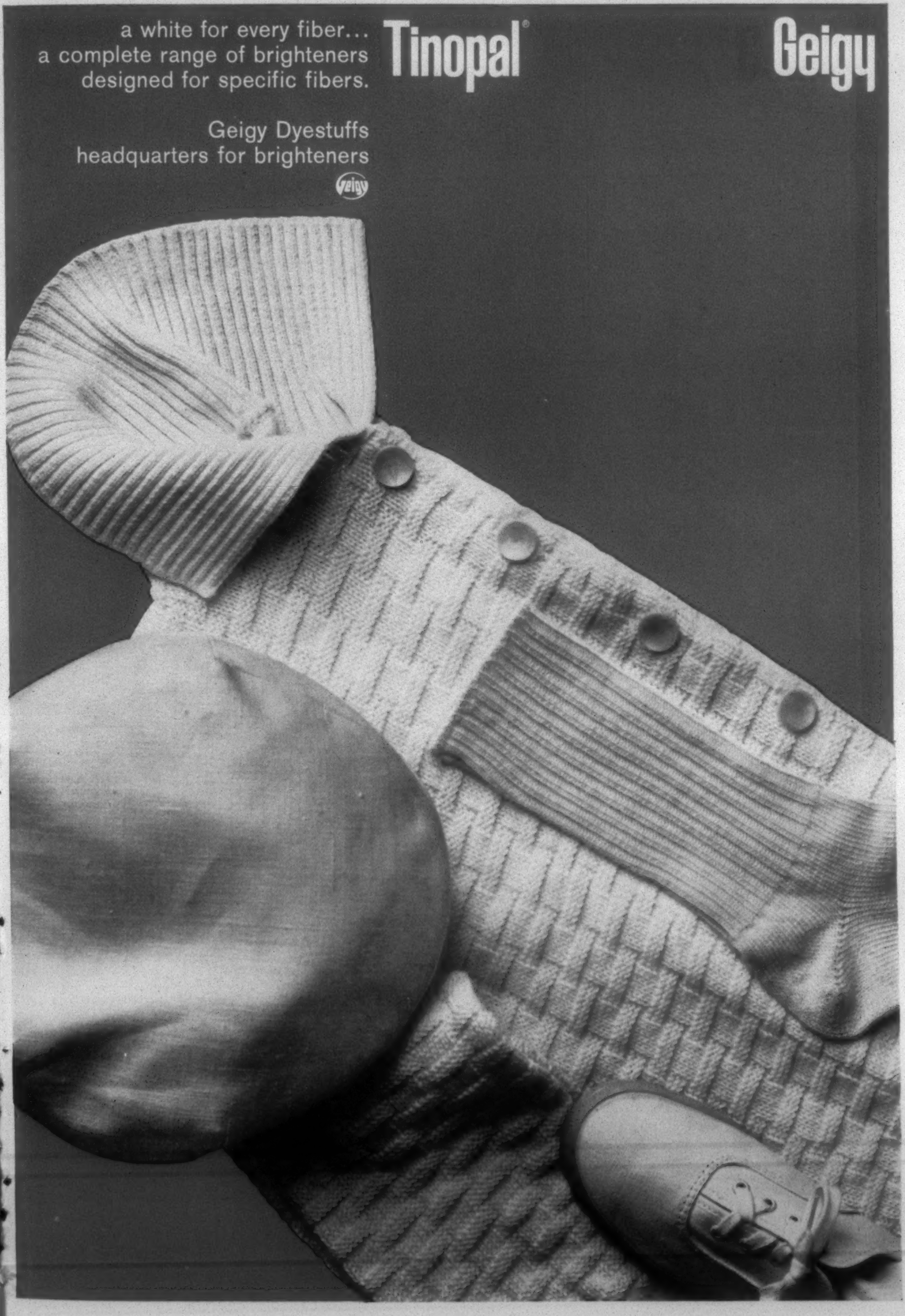

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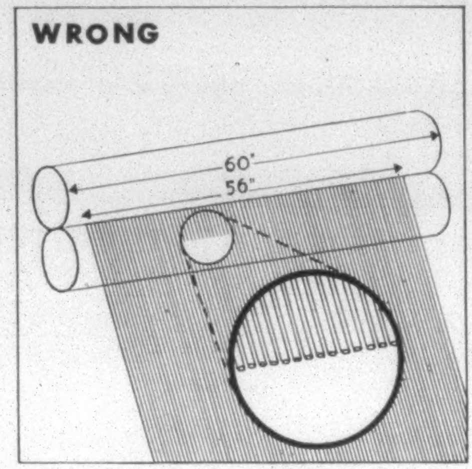

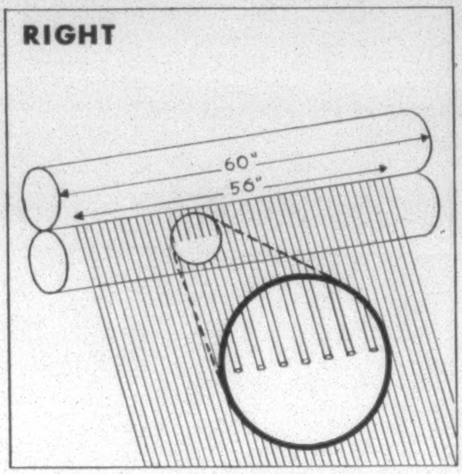

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